

REPORT

OF THE

BENGAL CHAMBER OF COMMERCE

1ST NOVEMBER 1862-30TH APRIL 1863

e

REPORT

THE COMMITTEE

OF THE

BENGAL CHAMBER OF COMMERCE.

---

From 1st Nov. 1862 to 30th April 1863.

---

Calcutta:

PRINTED BY SANDERS, CONES AND CO., NO. 23, LOLL BAZAR.

1863.

# INDEX.

SUBJECTS.	Report page.	Appendix page.
Commercial Telegrams .....	7	.....
The Amended Stamp Act .....	8	i
Annual Reports on the External Commerce of Bengal..... }	10	.....
Consolidated Customs Act .....	10	.....
10 per cent. Duty on Glasgow manufactures.	11	.....
Survey of Steam Tugs.....	12	vi
Transmission of the Bombay Overland Mail by Railway from Benares..... }	13	viii
Postal communication between Calcutta and Koochta .....	14	xii
The After-Packet System.....	14	xiv
Marine Court for trial of Pilots charged with breach or neglect of duty..... }	16	xviii
Proposed appointment of a Marine Magistrate .....	19	xxii
Merchant Shipping Act—Desertion of Seamen	20	xxiv
The Electric Telegraph .....	20	xxv
Cotton Cultivation in the Punjab.....	22	xxxvii
Cotton Cultivation in the Central Provinces.	22	xlix
Cotton Cultivation in Burmah .....	22	lviii
Early closing on Saturdays .....	3 & 23	lx
Address to the Hon'ble Sir Charles Trevelyan, K. C. B. .... }	24	lxv
Proposed scheme for the benefit of Merchant Seamen of Great Britain .....	24	lxviii
Wet Docks .....	26	lxxi



# INDEX.

SUBJECTS.	Report page.	Appendix page.
East Indian Railway .....	30	.....
Eastern Bengal Railway .....	32	.....
Calcutta and South Eastern Railway.....	33	.....
Lancashire Distress Relief Fund.....	33	.....
Bill Brokerage .....	2 & 34	.....
Guaranteed First Class Insurance.....	2 & 34	.....
Municipal Corporation Bill and the River } Bank .....	3 & 34	.....
Sales of Imports for Cash on delivery .....	3 & 34	.....
Weight of Rice at Rice Ports for adjust- } ment of Freight, Commission, &c. ....	3 & 34	.....
Funds of the Chamber.....	35	cxvii
Commercial Returns for 1862 .....	.....	cxix
Statement of Cash Balances in Govern- } ment Treasuries in India .....	.....	cxxiv
Statement of Receipts from Income Tax and } Stamp Duty .....	..	cxxiv
Members of the Chamber .....	1 & 35	cxv
Rules and Regulations of the Chamber .....	.....	cxvii

*Proceedings of a General Meeting of the Bengal Chamber of Commerce, held on Friday, the 1st May 1863.*

WILLIAM MAITLAND, Esq., *Vice-President*, in the Chair.

The proceedings of the meeting were commenced by the Chairman calling attention to the notice issued to members by the general advertisement under which the meeting had been convened. The notice having been read, the Chairman said he would submit the Committee's Report of Proceedings for the last half-year, which the Secretary would read; at the same time explaining that in consequence of the departure for Europe of Mr. Bullen and Mr. Sagarandi, and the desirableness of having their places filled up without delay, the Committee had convened the meeting much earlier than usual, in order that members might have the earliest opportunity of electing the office-bearers for the current year.

The Secretary then read the Report.

On the proposition of Mr. W. C. Stewart, seconded by Mr. H. H. Murdoch, the Committee's Report was unanimously adopted.

The conditional election by the Committee of Messrs. E. E. Petrocochino and Co. and of Messrs. Lewis, Bailey and Co. was confirmed, on the proposition

of Mr. P. T. Ralli, seconded by Mr. James Rome. Messrs. Graf and Banziger,—proposed by Mr. Schiller and seconded by Mr. Pietsch,—and Baboo Mohendronauth Bose,—proposed by Mr. W. C. Stewart and seconded by Mr. Schiller,—were also elected members.

The following resolutions were then submitted :—

1. Proposed by Mr. James Rose, seconded by Mr. W. C. Stewart.

“That in the opinion of this meeting the proper charge of bill brokerage in Calcutta is one quarter of one per cent. ; and further this meeting is of opinion that if the rate be reduced from its present rate of  $\frac{1}{2}$  per cent. to  $\frac{1}{4}$  per cent. it would be fair and equitable to bill brokers that, as a rule, all purchases and sales of bills should be made through brokers and not direct, and that brokers should not be expected or called on to return to their principals any part of such charge of  $\frac{1}{4}$  per cent.”

*Carried with one dissentient voice.*

2. Proposed by the Chairman on behalf of Mr. William Grant, who was absent, and seconded by Mr. Claud Brown.

“That this meeting is of opinion that in case of charter parties and other freight engagements, where first class insurance is guaranteed, it is not necessary that insurance should be provided in any particular insurance office ; but that it is sufficient if such insurance is provided in any first class insurance office or offices.

*Carried unanimously.*

3. Proposed by the Honorable D. Cowie, seconded by Mr. James Rose.

“That it is expedient that mercantile business in Calcutta be closed on Saturdays at 2 p. m.”

*This resolution having been put to the vote was lost by 23 to 21.*

4. Proposed by Mr. J. Scott Elliot, seconded by Mr. Schiller.

“That in shipments of rice at Akyab, Rangoon, and Bassein, the actual clearance weight at the Custom House, less 4 per cent. for average loss in weight on the voyage, should hereafter be taken as the basis for the numerous transactions which require to be settled here, in all instances where no specific agreement on the subject has been entered into beforehand.”

Mr. W. C. Stewart having proposed, as an amendment, that the words *less 4 per cent. for average loss in weight on the voyage* be omitted, and the amendment being carried, the original proposition was passed with that modification.

With regard to the *Municipal Corporation Bill and the River Bank, and Sales of Imports for cash on delivery*, which were two of the subjects submitted by the Chairman for discussion, the meeting was of opinion that these questions should be reserved for further consideration.

The Chairman having intimated to the meeting, that unless members themselves wished to bring forward any matter for discussion the election of the

Committee for the current year was alone wanting to terminate the business of the day, and as nothing was submitted by members, the scrutineers, Messrs. P. T. Ralli and R. L. Eglington, were requested to declare the election, and they made the following return :

41	votes for Mr. William Maitland, as <i>President</i> .	
34	„ Mr. Stewart Douglas, as <i>Vice-President</i> .	
63	„ Mr. J. G. Whitney,	} <i>As Members</i> <i>of Committee.</i>
60	„ Mr. P. T. Ralli,	
43	„ Mr. J. Scott Elliot,	
41	„ Mr. T. R. Grant,	
35	„ { Mr. F. Schiller, and	
	„ { Mr. R. B. Mackay,	

As the last two gentlemen had obtained an equal number of votes it was proposed that in lieu of fresh voting cards a circular be issued to members to determine who should serve on the Committee.\*

Mr. Maitland thanked the meeting for the honor conferred on him by being elected as the President of the Chamber ; and although he felt himself at a disadvantage by succeeding their late able President, Mr. Bullen, for whom he entertained the highest regard, and whom he considered the ablest man in Calcutta for that office, yet he would do his utmost in the interests of the Chamber, and trusted his exertions would not disappoint those who had placed him in the position he had the honor of occupying.

\* Mr. Schiller was subsequently elected.

Mr. Stewart Douglas also thanked the meeting for his election as Vice-President ; and the other members having expressed their willingness to serve on the Committee, the Honorable Mr. Fitzwilliam proposed, and the Honorable Mr. Cowie seconded, a vote of thanks to the late President, Vice-President, and members of the Committee for the service rendered by them to the Chamber during the last year, which was unanimously carried : and the meeting terminated with thanks to the Chairman.

H. W. J. WOOD,

*Secretary.*

## BENGAL CHAMBER OF COMMERCE.

REPORT OF THE COMMITTEE FOR THE HALF-YEAR  
ENDED 30TH APRIL 1863.

### COMMERCIAL TELEGRAMS.

Your Committee's last Report fully detailed the arrangements connected with the preparation, by the Chamber's London correspondent, of a commercial message which should introduce quotations and reports relating to the articles of eastern produce of special interest to the trade of this port, and of that of Bombay, Madras, Colombo, Cochin and other places.

Those arrangements have been carefully carried out, and although the Cochin Chamber has withdrawn from the associated telegram, the Committee believe the summary of mercantile intelligence thus compiled has given general satisfaction. The weekly précis is transmitted by telegraph to Suez (the extension to Jubal having been discontinued) up to the latest safe date, and as a rule the intelligence thus received anticipates mail advices by upwards of a week.

The weekly telegrams to Mr. Reuter's agents at Galle and Bombay, for publication in London, and those to the Bombay and Madras Chambers, have been punctually transmitted.

With reference to the valuable reports from China which are received by each mail the Committee have

to announce that Mr. Overbeck, who, for the last seven years, has gratuitously given his services as the Chamber's correspondent at Hongkong, has proceeded to Europe, arrangements for a continuance of the reports having been previously made. To mark their sense of the voluntary service so long rendered to this branch of the trade of Calcutta, the Committee have requested their late President, Mr. Bullen, now in England, to present Mr. Overbeck with a testimonial of the value of one thousand rupees.

#### THE AMENDED STAMP ACT.

##### APPENDIX A.

It is provided by Section XI of Act X of 1862 (the Amended Stamp Act) that the holder of any bill of exchange drawn out of the British Territories in India shall, before in any manner negotiating it, affix thereto, whether the same be a *single* bill or *one of a set of two or more* a proper stamp for denoting the duty charged by the Act on the amount of such bill when drawn *singly*.

At first reading, this section seemed to require that in negotiating such bills *one copy* of a set of two or more should bear the *full* amount of duty just as if it had been a bill drawn *singly*; but a careful consideration of the language of the section shows that it is capable of another construction and one more in consonance with

the ordinary incidence of the Stamp Law on bills of exchange payable abroad. That construction is that the word *denoting* in this section is used in the sense of *indicating*, and that the stamp required to be affixed on the transfer of any *copy* of a set of two or more bills is not the *full* amount which would have been affixed had the bill been drawn *singly*, but only the amount which *indicates* the duty which *would* have been payable had the bill been *so* drawn.

To clear up the ambiguity involved in the wording of this section of the Stamp Act the Board of Revenue were requested to give the Chamber an authoritative interpretation of its meaning, but while they agreed in the interpretation put by the Committee on the passage in question they declined to give any authoritative interpretation of the law, not being legally empowered to do so. The matter was therefore submitted to the Government of India; but passed on to the Government of Bengal, to whom the reference in the first instance should have been made, and the question is now before the Lieutenant-Governor for disposal.

While on this subject, it may be added that the application of the Act to *bills locally drawn under marginal letters of credit* was brought to the notice of the Committee, who were of opinion that the Act never contemplated the imposition of a double

duty on the same instrument, that is, both on the credit itself and the bill drawn under it, and purposed remonstrating against such an interpretation of the law : but they suspended action in the matter as a reference had been privately made to Government : the result of which, it is satisfactory to state, confirms the view the Committee took of the misconstruction of the Act by the Board of Revenue in reference to these marginal credits. Orders have been given by Government to refund any amount paid as stamp duty on such marginal credits.

#### ANNUAL REPORTS ON THE EXTERNAL COMMERCE OF BENGAL.

The Government of Bengal having applied for an expression of opinion as to the necessity for continuing to publish Annual Reports on the external commerce of Bengal, as prepared by the Board of Revenue, in the event of correct annual trade returns being given in the form suggested by the Customs Committee and approved by the Government of India, the Committee replied that the necessity under such circumstances would no longer exist, and that the publication might be discontinued without inconvenience.

#### CONSOLIDATED CUSTOMS ACT.

The Act to consolidate and amend the laws relating to the administration of the Department of Sea Customs in India, to which allusion was made in

the Committee's last report, received the assent of the Governor-General in Council on the 29th January last.

The provisions of this important enactment are, generally, such as will, it is believed, materially improve the administration of this department of the public service. Affecting the interests both of the State and of the entire commercial and trading community, and the convenience and comfort of the public at large, the appointment by the local Government of the officer who is to exercise the chief control in the Department of Customs in this Presidency will, the Committee trust, be such as to satisfy all who are concerned in the selection of a person well qualified to exercise the large powers vested in him by the Act, and to insure a just and efficient administration of the Customs Law.

#### 10 PER CENT. DUTY ON GLASGOW MANUFACTURES.

A representation having been made to the Committee that, by order of the Board of Revenue, the Collector of Customs had insisted on levying a duty of 10 per cent. upon certain descriptions of Glasgow goods, which importers considered at variance with their reading of the Customs Act, XI of 1862, and with the construction which they believe it was intended by the Supreme Government that Act should bear, and as their endeavour to get the Board's order set aside had been unsuccessful, the

Committee were requested to refer the matter to the Government of Bengal. A meeting of members interested in the matter at issue was held on the 30th December, and it was determined to submit the case for the opinion and decision of His Honor the Lieutenant-Governor. Up to this moment no definite reply has been received, but as the representation has been referred to the Government of India with the Lieutenant-Governor's recommendation that the goods in question should be admitted at the lower rate of duty, there is a hope that the Board's order will be withdrawn—with retrospective effect.

#### **SURVEY OF STEAM TUGS.**

##### **APPENDIX B.**

In their Report for the half-year ended 31st October 1861, the Committee announced the probability of a legislative enactment for the periodical survey of all steamers plying on the Hooghly; and on the 1st May 1862 a Bill was passed by the Council of the Lieutenant-Governor of Bengal by which the steam tugs of this port were specially made subject to its provisions.

The proprietors of these vessels endeavoured subsequently to obtain an exemption from the operation of the Act, and the question having been referred by the Government of Bengal to your Committee, they were of opinion that no case whatever had been made out for the exemption applied for: and

they therefore recommended the enforcement of the Act, suggesting at the same time that it should be so carried out as to inflict the least possible inconvenience.

#### **TRANSMISSION OF THE BOMBAY OVERLAND MAIL BY RAILWAY FROM BENARES.**

##### **APPENDIX C.**

Having represented to the Director General of Post Offices that the arrangements by which the transmission of up-country mails was intended to be accelerated had not materially improved the postal service between Benares and Calcutta, and that notwithstanding the facilities afforded by railway communication, letters were not delivered much earlier than before those facilities existed, the Committee were informed that the despatch of overland expresses by special trains was under the consideration of the Government of India. The correspondence thus far has been published, and a continuation of it will be given in the Appendix: the Committee briefly remarking that it has been closed by the declaration of the Director General that he "can only represent what is necessary, and that it is for the Government to decide what is possible."

What the Director General has represented as necessary and what the Government of India may consider and decide as possible we are not told: but that the European mails forwarded by express in advance of the ordinary post should be detained at

Benares from 12 to 24 hours reflects no credit on either the Government of India or the head of the postal department. The detention of the express even for an hour would not be tolerated in England, and it is essential that this important department of the public service should as speedily as possible assimilate its action to that which is carefully observed at home.

#### POSTAL COMMUNICATION BETWEEN CALCUTTA AND KOOSHTA.

##### APPENDIX D.

The attention of the Post Master General of Bengal having been called to the great delay in transit of letters from Calcutta to Kooshtea, the terminal station of the Eastern Bengal Railway on the Ganges, the Committee were informed that experimental Post Offices would from 1st March be opened at that station and the intermediate one of Choadanga, and that the bulk of the mails to and from the eastern stations would be conveyed by railway as soon as night trains commenced running between Sealdah and Kooshtea.

The correspondence on this matter has already been published.

#### THE AFTER-PACKET SYSTEM.

##### APPENDIX E.

The arrangements for conveying the after-packet to overtake the mail steamer at Kedgerie have, as

a rule, involved the necessity of closing correspondence at the excessively inconvenient hour of 2 p. m., sometimes even earlier, but seldom at a later hour: under the existing system however this was unavoidable, for it is to be remembered that after being conveyed by land to Diamond Harbour, in about four hours, the packets are taken across the river, carried by runners 30 miles to Kedgerie, and there again placed in a dāk boat to wait the steamer's arrival off that station.

The Committee thought this a very clumsy method of performing such service, and suggested a plan by which the safe delivery of the after-packet could not only be invariably guaranteed, but the public would also have the opportunity of posting their latest letters up to the ordinary post hour of 6 p. m. The proposition is to convey the after-packet, as now, to Diamond Harbour, and there ship it, the same night, on board the Government steamer *Celerity*, or any other available steamer, in attendance off that station, and which would proceed early the following day and place the after-packet on board the mail steamer, which ordinarily anchors at Culpee.

This plan may involve some additional expense to Government—inconsiderable at the most; but the Committee are confident that, to secure the increased accommodation it would afford, the public would cheerfully pay any trifling extra postage to reim-



burse the Post Office, if the liberality of Government cannot be thus far extended.

This matter is still under the consideration of Government.

**MARINE COURT FOR TRIAL OF PILOTS CHARGED  
WITH BREACH OR NEGLECT OF DUTY.**

**APPENDIX F.**

The Lieutenant-Governor of Bengal has made several representations to the Committee as to the constitution of the Marine Court for trial of officers of the Pilot establishment charged with breach or neglect of duty.

The Committee were informed that within the short period that had elapsed since His Honor assumed charge of the Government of Bengal, there had been no less than five cases in which there had been a failure of justice both to the parties complaining and to the mercantile public generally, owing, as the Lieutenant-Governor believed, to the maladaptation of the constitution and procedure of the Court to the trial of such cases. There seemed to the Lieutenant-Governor to be ground for supposing that the law, as it stood, did not sufficiently protect the interests of the public, while the difficulty of obtaining a conviction against a pilot accused of breach of duty was such as practically enabled him to endanger with impunity the ship under his charge, with its cargo, and the lives of those on board.

The question submitted for the Committee's opinion was whether a change in the law was not necessary, in order to protect the shipping of this port from the misconduct of pilots, and whether it would not suffice if a Committee of Enquiry, constituted as the Jury of the Marine Court now is, were appointed to report on any charge brought against a pilot, the Government being left to decide, on consideration of the Committee's Report, as the exigency of the case might require.

Upon a review of the circumstances thus submitted, and which had their most earnest and careful attention, the Committee replied to the following effect :—

That while concurring in opinion that in the majority of cases referred to there seemed to have been a miscarriage of justice, they were disposed to refer it to other causes than to a maladaptability of the constitution of the Court, which, theoretically, appeared to be well adapted for the conduct of such trials. The mercantile and shipping interests by their representatives having a majority of votes, the reasonable inference is, if Pilots escape punishment, either that the case for the prosecution has broken down or that there has been a misdirection to the Jury on the evidence by the Judge. To these causes the acquittals in the cases noticed were, the Committee thought, clearly referable. They were, therefore, of opinion, that no sufficient case had been established for the abolition of

the Court and the proposed substitution of a mere Court of Inquiry;—a modification which would deprive the Court of all authority, and leave each case to be dealt with absolutely by the Executive, for the Government would not necessarily be bound to adopt the conclusions at which such Court might arrive on the evidence, but would act independently of their opinion on the advice of the marine authorities. That such cases would be dealt with by the Government with entire impartiality the Committee were fully satisfied; still, they were of opinion that such an alteration in the constitution of the Court was not desirable in the interest of Government itself, and would not be agreeable to the mercantile and shipping interest.

But though the Committee could not therefore recommend what would be, virtually, an abolition of the Court as constituted under Act XII of 1859, they fully approved of the amendment of Section XVII, as proposed by the Officiating Master Attendant, Captain Howe, by which Members of the Court should have the power of voting on the question of *punishment to be awarded* as well as on the question of guilty or not guilty. At present the Judge alone can pass such sentence as he thinks fit, but the Committee were of opinion that the practice under Act XXIV of 1845 might be advantageously reverted to and introduced as a rule of the Marine Court.

The addition of a second master of a merchant

ship to the number of Jurors on each trial was another alteration which the Committee thought desirable, and they suggested its introduction in the event of the Act receiving amendment.

With these alterations in the constitution and procedure of the Court, and by the appointment to the vacant office of Judge of a person well qualified to direct a judicial inquiry, and having special acquaintance with nautical matters, the Committee saw no reason why the Court should not prove equal to the proper adjudication of all cases brought before it.

#### PROPOSED APPOINTMENT OF A MARINE MAGISTRATE.

##### APPENDIX G.

At the instance of several Members of the Chamber who were of opinion that the appointment of a Marine Magistrate for the Port of Calcutta was highly necessary, the Committee took up the question and submitted it for the consideration of the Government of Bengal, urging that besides those qualifications which were requisite to fit a person for the bench a practical knowledge of the character of seamen was essentially necessary for the right administration of the office of Marine Magistrate.

Availing themselves of the opportunity afforded by the present vacancy in the office of Judge of the Marine Court, the Committee recommended that

the person holding that appointment for the future should also hold the appointment of Marine Magistrate, a combination of duties which would not interfere with the proper discharge of either office, but would rather be an advantage to the public service.

/MERCHANT SHIPPING ACT.  
DESERTION OF SEAMEN.

APPENDIX H.

The General Shipowners' Society of London have acknowledged the Chamber's representation made to them in this respect, stating that they would forthwith put themselves in communication with the Lords of the Committee of Privy Council for Trade. It is hoped that the action now taken by this influential Society will not be suspended until the protection of masters and owners against seamen's criminal breach of contract has been sufficiently provided for by an enactment of the imperial legislature.

THE ELECTRIC TELEGRAPH.

APPENDIX I.

Reference was made in the last Report to instructions issued by Government to the Director General of Telegraphs to proceed with the construction of a second line between Allahabad and Bombay or between Benares and Bombay, whichever seemed preferable.

The chief pressure of work appears to be on the

Benares and Agra section, and a double line will be completed by the ensuing rains. Beyond Agra the single wire is considered sufficient to carry all the work likely to be put on it this year : arrangements for a double line are progressing, however, large numbers of Hamilton's standards having been distributed and being erected.

The endeavours of Mr. C. C. Adley to form a Company in London for the construction of an independent line of telegraph between Calcutta and Bombay have already been recorded : and in the appendix to this Report will be found a correspondence between that gentleman and the Chairman of the East Indian Railway Company, in which the question is fully discussed whether an extension of telegraphic communication by the combined action of the various Indian railway companies or through the medium of a private company, would be the better mode of affording increased telegraphic correspondence throughout India, and of developing to its fullest extent the telegraphic traffic of this country. Mr. Adley's conclusions are adverse to the conjoint operation of railway companies, while his arguments in favor of a separate Telegraph Company working amicably with them are thus given :

1. To carry out the measure successfully would require a perfect organization, and more extensive machinery than the railways possess.

2. It would form a distinct business of itself, and involve an infinity of detail that would hardly come within the scope of a railway company.

3. A responsible Board, who will devote their attention to their own and the general interests, on whom the public can rely, and to whom they can appeal, would give more prominence, stability, security, and confidence to the public, than if that responsibility were scattered over a number of disconnected sections of separate railways.

4. A private company, working with unguaranteed capital, would be capable of immediate action, and have the ability to execute works without delay, and without perpetual references. It would form a combined and powerful organization, which by opening out the extremes of India in conjunction with the railway system, could not fail to be otherwise than mutually beneficial to both. On the other hand, the want of such a united and perfect organization would be fatal to the enterprise, and deprive the local railway routes of an amount of business which they might not obtain for years to come, and possibly not at all.

The reply to this communication has not been received : but Mr. Adley has formed a powerful Board who are prepared to carry out the undertaking and complete it with all possible despatch.

#### COTTON CULTIVATION.

##### APPENDIX J.

The appendix of your Committee's last half yearly Report contains several interesting communications on this important subject, especially from the Government of the N. W. Provinces : and they have since been furnished with returns from the Punjab and the Central Provinces, which have been published and made available to Members. With regard to

the production of cotton in Burmah, the Chief Commissioner has lost no opportunity of bringing the subject forward, and hopes the crop for the current year will largely exceed that of last season which amounted to 80,000 maunds—if the monopoly which was granted last year by the Burmese Authorities is withdrawn.

#### EARLY CLOSING ON SATURDAYS.

##### APPENDIX K.

The Committee stated in their last Report the grounds on which they opposed the application of the employés of the Custom House for early closing on Saturdays. The application was renewed a few weeks since, accompanied by an assurance from the Officiating Collector of Customs that arrangements would be made for the clearance of any vessel applying for her port clearance on Saturdays : and as the Committee's former objection was thus removed they withdrew their opposition to the Collector's proposal.

A similar indulgence has been applied for by the Board of Revenue on behalf of the offices of the Superintendent and Collector of Stamps, on the understanding however that the usual hours would be observed were the mails for England to close on a Saturday.

The Committee replied that they had no objection provided that condition applied also to the mails for China.

At the same time it was suggested that as scarcely any house of business closed till 5 P. M., public offices should be kept open till that hour; and as uniformity of practice is desirable in early closing on Saturdays, so is it in observing working hours during the rest of the week.

**ADDRESS TO THE HON'BLE SIR CHARLES  
TREVELYAN, K. C. B.**

APPENDIX L

On the arrival of Sir Charles Trevelyan as Financial Member of the Council of the Governor-General, the Chamber presented to him an Address of Congratulation, copy of which and of his reply are given in the appendix.

While the commercial community of Calcutta will ever feel the debt of gratitude they owe for the great services rendered by the immediate predecessors of Sir Charles Trevelyan,—Mr. Laing and the late Mr. Wilson,—they gladly welcomed the arrival among them of a public officer of such proved and distinguished administrative abilities to discharge the duties of the important post confided to his care.

**PROPOSED SCHEME FOR THE BENEFIT OF MERCHANT SEAMEN OF GREAT BRITAIN.**

APPENDIX M.

*"The present condition of seamen and how it may be improved"* was the subject of two admirable

lectures delivered on the 8th and 19th of November last by Captain Henry Toynbee, F. R. A. S., Commander of the ship "Hotspur." The first was addressed chiefly to the commanders and officers of ships lying in the river Hooghly, and the last to sailors. These lectures were very numerous attended, and the seamen specially appeared much interested in the subject of his address and the propositions submitted for their earnest consideration, viz., the providing of Homes for the wives and children of married seamen; and the establishment of a Benefit Fund for pensioning aged and decayed seamen.

To assist him in giving practical effect to these propositions Captain Toynbee appealed to the Chamber, and the Committee were glad of the opportunity of aiding him in his humane efforts to ameliorate the condition of a hard working but too often improvident class of men. As a preliminary measure the subject was brought by the Committee under the notice of the Right Honorable the Lord Mayor of London, in the hope that by His Lordship's influence the subject might be so introduced to the English public as to command the success it truly merits, and that it might lead to steps being taken to give effect at an early date to the propositions so strongly recommended by Captain Toynbee. The co-operation of the other Chambers in India, China, and the Australian Colonies, who have been addressed on this subject, will the Committee feel sure be

heartily given, when the time for further action arrives.

### WET DOCKS.

#### APPENDIX N.

The question of the establishment of Wet Docks for the port of Calcutta has again been engaging the attention of the Chamber. It will be in the recollection of members that when this project was last entertained the declaration of His Excellency the Governor-General in Council that a guarantee of interest could not be given compelled the Committee to abandon the further consideration of the question.

The subject has again however been brought under the notice of the Chamber in a series of communications from Mr. Franklin Prestage, the Acting Agent of the Eastern Bengal Railway Company, and the result of that reference is embodied in the accompanying *resumé* of the Committee's reply.

The arrangements for the loading and discharging of vessels frequenting this port are confessedly defective; the facilities which abound in every other city for carrying on its trade are almost entirely wanting in Calcutta; and the consequent delay and inconvenience, and destruction and pilfering of property, are probably unequalled elsewhere: and it is manifest that those facilities which are urgently demanded by the yearly augmenting trade of Calcutta can only be secured by a complete change in the existing system.

Various schemes for the purpose of affording those facilities have been discussed, but none so frequently or so earnestly as the establishment of Wet Docks; the Chamber of Commerce have on every occasion expressed an opinion favorable to their construction, and as the project involved in Mr. Prestage's communication promises all the requirements so long desired, the Committee saw no cause to think less favorably of it now.

At the present moment there are three schemes before the public, viz., Wet Docks, Quay Wharves, and Screw Pile Jetties: the advantages arising from either of them would be considerable, and each would materially improve the trade of the port and the general comfort and convenience of the city; but the Committee had no hesitation in expressing their belief that Wet Docks would be capable of affording facilities far superior to what can possibly be afforded by the quay wharves or jetties; and both on account of the greater despatch which the shipping of the port would always command, and the protection and security of property, the advantages would be so decided that Wet Docks would be gladly resorted to by a considerable proportion of the tonnage arriving in the river, provided the docks were constructed and maintained at such a reasonable outlay as would admit of the charges being fixed at a moderate sum proportioned to the saving of time which they would render possible.

The construction of a ship canal from the

Mutlah to Calcutta in connection with the construction of Wet Docks was at first proposed by Mr. Prestage, but that idea has been abandoned for the modified minor scheme of a "conduit" for supplying the docks with water. This might eventually be developed into a ship canal should the condition of the Hooghly necessitate such a measure, and the Committee were disposed to think favorably of that portion of the project.

While the Committee however were unprepared to do more than give a general approval to what Mr. Prestage submitted, they were of opinion that the subject of Wet Dock accommodation should be carefully considered, and that the whole question should be enquired into anew; they therefore brought Mr. Prestage's proposition to the notice of the Honorable the Lieutenant-Governor, trusting His Honor would see sufficient ground for their recommendation that a Committee be appointed for the special purpose of reporting on its merits.

In a communication from the Supreme Government to the Government of Bengal dated 26th August 1861, it was stated that the Government though opposed to any guarantee of profits in any form would be disposed to assist the scheme of Wet Docks by taking shares, with the privilege of nominating a portion of the managing body, and generally to render such aid as could appropriately be given: and the Committee suggested that if the Government were still of opinion that the

degree of assistance which they were then disposed to give could yet be extended, the expression of such an opinion would probably enable the promoters of the scheme to raise a sufficient capital without a guaranteed interest, for the abundance of unemployed capital in England, and the greater favor with which Indian schemes were regarded rendered it an auspicious moment for placing such a project on the London market, supported as it would be by the recommendation of the Committee and the favorable opinion of the Government of India.

In answer to this reference His Honor the Lieutenant-Governor stated that he had no doubt whatever that capacious and properly constructed Wet Docks, well situated and connected with the city and Railway Stations by a tramway, would be of great advantage to the Port, and to the shipping resorting to it, as well as to all interested in its trade: he also thought that, if well managed it would be a sound commercial enterprise affording every chance of fair profits. The Lieutenant-Governor, however, distinctly expressed his opinion that, whilst every facility should be given by Government to the undertaking as one which was likely to succeed and to be very beneficial to the City and Port, no step should be taken calculated directly or indirectly to give it an official or Governmental character, that it should stand on its own merits, and be treated simply as an ordinary commercial undertaking: no hopes

could therefore be held out of Government becoming a partner in the concern by taking shares, or by gift of land, or otherwise.

At the same time the undertaking was fully recognised as one essentially of public utility, and under the provisions of the recent Act of the Indian Legislature, No. XXII of 1863, the Government of Bengal would support any well considered and approved project brought forward by promoters able and prepared to carry it out.

The question of Wet Docks having been so fully discussed and reported on, the Lieutenant-Governor saw no necessity for the appointment of a Committee or for any further inquiry by Government.

Satisfied with the result of this reference both to the Chamber of Commerce and to the Government of Bengal, and fortified with the opinions of the highest engineering authorities in India, Mr. Prestage has forwarded a prospectus of his project to London with the view of raising the required capital there, and carrying out the work which he has thus far so successfully brought forward.

The following record of railway progress, in continuation of reports to the end of last November, has been obligingly furnished for the Chamber's information.

#### EAST INDIAN RAILWAY.

The construction of the Jubblepore Line which

had been let to Messrs. Waring Brothers and Hunt, as stated in last report, and whose Agent and Staff arrived in India last January, is being rapidly proceeded with, active measures having been adopted by the officiating Chief Engineer to keep pace with the contractors' requirements by preparing the line, setting out the slopes, &c.

In the North-western Provinces the extension of the line has been well advanced. The further opening from *Dinapore* to *Benares* took place on the 22nd December, and between *Jamalpore* and *Benares* an additional goods' train has been put on since the 1st April.

The great difficulties to be overcome before the line can be extended to *Allahabad* are the erection of the bridges over the rivers *Tonse* and *Jumna*: the works are however going on satisfactorily, and it is hoped that a through road to *Mirzapore* may be laid in by June next, and a further extension to the *Jumna Bridge* by the rains of 1864.

The Chief Engineer's half-yearly report of operations in the Bengal division has not yet been submitted; it is being prepared in London, and the results will be given in our next summary of railway progress.

In the meanwhile the Committee consider it justly due to Mr. Turnbull that the termination of his labors in India should not pass unnoticed by this Chamber, and that the expression of their high estimation of



his professional services as Chief Engineer of the East Indian Railway Company be specially recorded.

Mr. Turnbull has established a strong claim to the gratitude of the public at large by many years of unceasing application to the anxious and arduous duties of his appointment: his complete success is exhibited in results which a skilful prosecution of a national work of great magnitude has enabled him to accomplish; and with scientific acquirements of the highest order and a determination of purpose to overcome all difficulties, Mr. Turnbull has perfected that work, and terminated his career with great benefit to this country and with distinguished honor to himself.

#### **EASTERN BENGAL RAILWAY.**

The first section of this railway from Calcutta to Kooshtea, which was opened for passenger and goods traffic in November last, has been worked with great success up to the present time.

The receipts, both from passengers, and goods, have steadily increased, and it is satisfactory to know that no accident whatever has occurred to the public, or any of the Company's servants.

Several additional stations were opened on this line early in March, which have given increased accommodation to the public, whilst at the same time they have added to the Company's receipts.

It is to be regretted that nothing appears to have been done to advance the extension of this important

line of railway on the north bank of the Ganges, towards Assam, Sylhet, and Dacca.

#### **CALCUTTA AND SOUTH EASTERN RAILWAY.**

It is expected that this line will be opened for public traffic to Canningtown, on the river Mutlah, about the 15th of May.

The extraordinary subsidence of the embankment across the old bed of the Piallee river has alone prevented the through opening at a much earlier date in the present year.

The Agent of the Company has received advice of the despatch from England of the Iron Screw Pile Jetty for Port Canning, referred to in our last report, and the erection of this important adjunct to the railway will be proceeded with immediately on its arrival.

#### **LANCASHIRE DISTRESS RELIEF FUND.**

In their last Report the Committee mentioned that the Chamber had originated a movement the objects of which was to raise subscriptions on this side of India to alleviate the extreme distress prevailing among a part of the manufacturing population in Great Britain in consequence of the short supply of cotton; reference was made to the public meeting held in Calcutta, and presided over by His Excellency the Viceroy, and it was stated that the liberal contributions received had enabled the Relief Committee to remit Home a sum of about £20,000.

As time passed on and the accounts from Home continued to tell the same sad tale of deep and increasing distress, endured with heroic fortitude and resignation, and alleviated by the noble liberality not only of the mother country, but of her dependencies in different parts of the world, it was felt that renewed and continued exertion was required here; and the result has been that up to the present time the remittances made to the Lord Mayor of London amount in all to the sum of £47,000.

Different classes have aided in this good work, and contributions have been received alike from the Governor General of India and from private soldiers in our regiments and sailors on board our ships, while liberal aid has been rendered by many of our native fellow subjects especially up-country, and also by the rulers of several independent native states who have subscribed largely to the fund.

#### BILL BROKERAGE.

#### GUARANTEED FIRST CLASS INSURANCE.

#### MUNICIPAL CORPORATION BILL AND THE RIVER

#### BANK.

#### SALES OF IMPORTS FOR CASH ON DELIVERY.

#### WEIGHT OF RICE AT RICE PORTS FOR ADJUST-

#### MENT OF FREIGHT, COMMISSION, &c.

These subjects having already been brought

by circular to the notice of members, who were invited to take them into consideration for the expression of their views at this meeting, the Committee submit them now for such decision as members may, in each case, arrive at.

#### NEW MEMBERS.

Messrs. E. E. Petrocchini and Co. and Messrs. Lewis, Bailey and Co. have been admitted members of the Chamber, subject to the usual confirmation.

#### FUNDS OF THE CHAMBER.

#### APPENDIX O.

A half-yearly statement of the funds of the Chamber is appended, shewing a balance in the Bank of Bengal of Rs. 3,417-13-0, exclusive of the reserve in 4 per cent. Government Paper of Rs. 7,500.

WILLIAM MAITLAND,

*Vice-President.*

CALCUTTA,

30th April 1863.

## APPENDIX A.

### THE AMENDED STAMP ACT.

BENGAL CHAMBER OF COMMERCE,

Calcutta, 17th December 1862.

W. J. HERSHELL, Esq.,

*Offg. Junior Secy. to the Board of Revenue.*

SIR,—I am directed by the Committee of the Bengal Chamber of Commerce to call the attention of the Board of Revenue to an ambiguity which appears to exist in the wording of Section XI of the Amended Stamp Act, and it being important to the mercantile community that this ambiguity should be cleared up, I am desirous to ask from the Board an authoritative interpretation of the meaning of the words referred to.

2. The above section provides that the holder of any bill of exchange drawn out of British territories in India, and not having a proper stamp affixed thereto, as prescribed by the Act, whether the same be a single bill or one of a set of two or more bills shall, before he present the same for acceptance or payment, or endorse, transfer, or in any manner negotiate, such bill, affix thereto a proper adhesive stamp for denoting the duty charged by the said Act on the amount of such bill when drawn singly.

3. The ambiguity consists in the meaning which attaches to the words—"a proper adhesive stamp for denoting the duty charged by the said Act on the amount of such bill when drawn singly,"—used in the above section in their application to foreign bills of exchange drawn in sets of two or more out of British India and payable out of British India, but negotiated and transferred in India.

4. At first reading, this section would seem to require that on transferring such bills one copy thereof should have affixed thereto the full amount of duty required by the Act to be affixed to a bill of the like amount when drawn singly, and this is the interpreta-

tion which appears generally to have been acted upon. But a careful consideration of the words seems to show that they are capable of another construction and one more in consonance with the ordinary incidence of the stamp law on bills of exchange payable abroad.

5. That construction is that the word "denoting" in the section is used in the sense of "indicating," and that the stamp required to be affixed on the transfer of any copy when the bill is drawn in sets of two or three is not the full amount which would have been affixed had the bill been drawn singly, but only the amount which *indicates* the duty which would have been payable had the bill been so drawn. Thus the stamp duty required by article 10 of Schedule A to be affixed to a bill for Rs. 10,000 if drawn singly being Rs. 12, under this interpretation the two copies of a bill if drawn in a set of two, would require each to have affixed an adhesive stamp of Rs. 6, or if drawn in sets of three each a stamp of Rs. 4, the said stamps taken in connection with the fact of the drafts being expressed in the body of them to have been drawn in sets of two or three, "denoting" or indicating the duty which would be charged by the Act had the bill been drawn singly.

6. This interpretation would, as I have before said, be in accordance with the ordinary incidence of the stamp law in the case of "foreign bills," describing by such term bills drawn in India but payable abroad. Whenever such bills are drawn in sets, as they almost invariably are to provide for cases of loss in transmission, the Act provides for the stamp duty being divided according to the number of copies drawn, and there seems no reason to suppose that the Legislature intended to apply a different principle to other foreign bills, that is to bills drawn in China or elsewhere and payable also out of India, which are sent to India for negotiation, such bills being exposed to precisely the same danger of loss in transmission as foreign bills locally drawn.

7. This subject has assumed practical importance from the recent loss of the Calcutta mails on Board the steamer *Colombo*. By that mail considerable remittances were made in bills of exchange drawn in China and Singapore on London which had been sent here for negotiation, and, in accordance with what is generally understood to be the meaning of the section above quoted, the full amount of the duty which would have been required had the

bill been drawn singly was affixed to the first copies so sent, and the full amount of the duty having been so affixed, the second copies were remitted by the succeeding mail without stamps.

8. The first or stamped copies having been lost the second or unstamped copies will, on arrival in London, be presented for acceptance or payment; and in the absence of evidence that the first copies had been duly stamped the drawees may refuse to accept or pay them on the ground that the Indian stamp law had been evaded.

9. Similarly in the event of such non-acceptance or of non-payment after acceptance, and the holder requiring to take recourse on an endorser in India, such endorser might plead that the bill not being stamped the holder's right to recover thereon was barred, and there might be difficulty in procuring legal evidence that the requirements of the law had been complied with.

10. With the view therefore of avoiding the loss and inconvenience which might arise in such cases, the Committee of the Chamber will be glad to receive from the Board an authoritative interpretation of the section referred to.

I have the honor to be, &c.,

H. W. I. WOOD,

Secretary.

No. 213.

From

J. P. GRANT, Esq.,

Offg. Junior Secretary to the Board of Revenue,

To

THE SECRETARY TO THE BENGAL CHAMBER OF COMMERCE.

Dated Fort William, the 21st Feb. 1863.

SIR,—I am desired by the Board of Revenue to acknowledge the receipt of your letter dated 17th December

last in which the Chamber of Commerce asks the Board to give an authoritative interpretation of an ambiguous passage in Section XI of Act X of 1862.

SEMPER.

W. J. Allen,

A. Grote,

&

E. T. Trevor,

Esqs.

2. In reply I am to state that while the Board agree in the interpretation put by the Chamber on the passage in question, they decline to give any authoritative interpretation of the law, as not being legally empowered to do so.

I have the honor to be,

Sir,

Your most obedient servant,

J. P. GRANT,

*Offy. Junior Secretary.*

BENGAL CHAMBER OF COMMERCE,  
*Calcutta, 26th February 1863.*

E. C. BAYLEY, Esq.,

*Secretary to the Government of India,*

*Home Department.*

SIR,—I am instructed by the Committee of the Chamber of Commerce to forward for submission to the Hon'ble the President in Council the accompanying copies of correspondence between them and the Board of Revenue relative to an apparent ambiguity in the wording of Section XI of the Amended Stamp Act.

In placing the matter before the Board the Committee requested to be furnished with an authoritative interpretation of the meaning of the words referred to, but the Board decline to give it as they are not legally empowered to do so, though at the same time they express their concurrence in the Committee's construction.

Having thus failed to obtain what they think would be of much interest to the mercantile public, the Committee venture to represent the case for the consideration of the President in Council, and trust His Honor will be pleased to confer on the Chamber the favor of expressing the opinion of the Government of India on the point submitted.

I have, &c.,

H. W. I. WOOD,

*Secretary.*

No. 1501.

From

J. W. S. WYLLIE, Esq.,

*Under-Secy. to the Govt. of India,*

To

H. W. I. WOOD, Esq.,

*Secretary to the Bengal Chamber of Commerce.*

*Dated Fort William, the 7th March 1863.*

*Home Dept.*

SIR,—I am directed to acknowledge the receipt of your letter dated the 26th ultimo forwarding copy of correspondence with the Board of Revenue, and requesting an authoritative interpretation of certain words in Section XI of the Amended Stamp Act.

2. In reply I am directed to intimate that the reference in question should have been made to the Government of Bengal to which your letter has been transmitted for disposal.

I have the honor to be,

Sir,

Your most obedient servant,

J. W. S. WYLLIE,

*Under-Secy. to the Govt. of India.*

## APPENDIX B.

### SURVEY OF STEAM TUGS.

No. 2951.

FROM

THE OFFG. JUNIOR SECRETARY TO THE  
GOVERNMENT OF BENGAL,

TO

THE SECRETARY TO THE CHAMBER OF COMMERCE,

*Dated Fort William, the 15th December 1862.*

Marine.

SIR,—I am directed to forward herewith, in original, the cor-

respondence noted in the  
margin, on the question  
of exempting steam  
tugs in this port from  
the survey provided un-  
der Act No. V of 1862  
(Bengal Council), and  
to request that the Chamber will be so good as to favour the Lieut-  
enant-Governor with their opinion on the subject, returning the  
enclosures with their reply.

I have the honor to be,

Sir,

Your most obedient servant,

J. D. GORDON,

*Offg. Junior Secy. to the Govt. of Bengal.*

BENGAL CHAMBER OF COMMERCE,

*Calcutta, 16th January 1863.*

E. H. LUSHINGTON, Esq.,

*Secy. to the Govt. of Bengal.*

SIR,—The Committee of the Chamber of Commerce desire me

vii

to acknowledge receipt of Government of Bengal letter in the  
Marine Department No. 2951 of 15th ultimo on the question of  
exempting steam tugs of this port from the provisions of Act V  
of 1862 which require their periodical survey.

The Committee have carefully considered the representations  
submitted by the owners of such vessels in their memorial to His  
Honor the Lieutenant-Governor as well as the report thereon by  
the Officiating Master Attendant: and I am instructed to state in  
reply to this reference that they see no ground for exempting  
steam tugs from the operation of the Act.

The Act was introduced into the Legislative Council of Bengal  
at the recommendation of this Chamber specially with the view of  
making vessels of this class subject to its provisions. No opposi-  
tion to its passing was raised by the memorialists whilst the bill  
was before the Council, and in the opinion of the Committee no  
valid reason is now advanced by them, why their property should  
not be surveyed as required by that enactment.

The Committee would add that there is a great difference  
between a tug towing a ship in the Thames or the Mersey and in  
the Hooghly: in England if a tug proved inefficient delay would  
generally be the worst result, but in such a river as the Hooghly  
such inefficiency may involve the loss of the ship, and instances  
can be referred to where serious accidents entailing heavy expenses  
for repairs have been attributed to the inefficiency of the tug  
vessels employed.

With reference to the apprehension of the memorialists that  
their interests will be affected by unnecessary restrictions, detention,  
and consequent expense, the Committee are confident that His  
Honor will enjoin the strictest injunctions that the Act shall be  
so applied that the owners of steam tugs will not be exposed to  
greater inconvenience than can possibly be avoided.

The enclosures of the letter under reply are herewith re-  
turned, and I have the honor to be,

Sir,

Your most obedient servant,

H. W. L. WOOD,

*Secretary.*

APPENDIX C.

TRANSMISSION OF THE BOMBAY OVERLAND  
MAIL BY RAILWAY FROM BENARES.

BENGAL CHAMBER OF COMMERCE,  
Calcutta, 26th January 1863.

G. PATON, Esq., M. D.,

*Director General of the Post Office of India.*

SIR,—It appears to the Committee of the Chamber of Commerce that the arrangement by which the transmission of up-country mails was intended to be accelerated has not materially improved the postal service between Benares and Calcutta, and that notwithstanding the facilities afforded by the railway communication letters are not delivered much earlier than before those facilities existed.

The Committee were specially struck with the apparently defective arrangements for despatching the last Bombay overland express after its arrival at Benares. It was announced as having reached that station at about 5 A. M., and yet as being too late for the train which the Committee believe started at about the same time. All the advantages of special despatch from Bombay were thus lost, though by a little consideration and arrangement by the Benares Post Office they might have been secured. The arrival of the express at Mirzapore being telegraphed to Benares, its receipt (accidents of course excepted) might have been prepared for within a given hour, and the detention of the train for any reasonable time could not possibly have been objected to.

The Committee desire me to express a hope that your attention will be given to arrangements best calculated to insure the accelerated transmission of the public mail generally, and that you

ix

will be able to obtain the assistance of the Railway Company for the special despatch of overland expresses.

I have the honor to be, &c.,

H. W. I. WOOD,

*Secretary.*

No. 3279.

FROM

G. PATON, Esq.,

*Director General of the Post Office of India,*

TO

H. W. I. WOOD, Esq.,

*Secretary, Bengal Chamber of Commerce.*

*Calcutta, 30th January 1863.*

SIR,—I have the honor to acknowledge the receipt of your letter of the 26th instant, and in reply to state for the information of the Committee of the Chamber of Commerce that the circumstances connected with the last overland express mail having been late for despatch by the train from Benares to Howrah, have been reported to Government, and that the despatch of overland expresses by special trains is under the consideration of the Government of India.

2. It was matter of deep regret that the last overland express mail was not forwarded by the passenger train of the morning of the 17th instant. It appears that it was forwarded from Mirzapore at 1-40 and was received at Benares at 5 A. M., five minutes were occupied in getting it ready for despatch to the railway station on the right bank of the Ganges, and as the station time is 13 minutes behind the railway time, it was not forwarded from the Benares Post Office until 5-18 according to railway time.

3. The railway station is five or six miles from the Benares Post Office, and as the bridge-of-boats on the Ganges has to be crossed, the transit of the mail cart usually occupies from 30 to 35 minutes. The approach to the bridge is difficult and necessitates

careful driving at all times, especially when crowded with passengers and vehicles of every description—which is generally more or less the case.

4. The station master could not (as supposed) have delayed the train beyond the time fixed for starting it. Government has now ruled that the traffic department shall detain the mail train at the terminus for a reasonable time—not exceeding quarter of an hour—when the Post Master certifies that the mail bags are at hand.

I have the honor to be,

Sir,

Your most obedient servant,

G. PATON,

*Director General of the Post Office of India.*

BENGAL CHAMBER OF COMMERCE,  
Calcutta, 13th February 1863.

G. PATON, Esq.,

*Director General of the Post Office of India.*

SIR,—The Committee of the Chamber of Commerce desire me to thank you for your letter No. 3279 of the 30th ultimo.

They are glad to learn that the subject of despatching overland expresses by special trains is under the consideration of the Government of India, and it will be satisfactory to the Chamber as well as to the community generally if that arrangement is carried out without delay; for the detention of expresses at Benares simply for the want of some better system of transmission by railway is a source of public inconvenience which requires to be removed forthwith.

If the Committee rightly understand your letter, the arrangement under consideration is that if the express is too late for the ordinary train after the authorized detention of 15 minutes, a special engine will be run to overtake that train, and that in the event of the express reaching Benares at any later period so that the ordinary train could not be overtaken or availed of, a special engine would be employed to convey it to Calcutta.

Be so good as to say if the Committee's reading of your letter in this sense is correct, and oblige

Your obedient servant,

H. W. I. WOOD,

*Secretary.*

No. 3474.

FROM

G. PATON, Esq.,

*Director General of the Post Office of India;*

TO

H. W. I. WOOD, Esq.,

*Secretary to the Bengal Chamber of Commerce.*

Calcutta, 16th February 1863.

SIR,—I have the honor to acknowledge the receipt of your letter No. — of the 13th instant, and in reply to state for the information of the Committee of the Chamber of Commerce that I can only represent what is necessary, and that it is for the Government to decide what is possible.

I have the honor to be,

Sir,

Your most obedient servant,

G. PATON,

*Director General of the Post Office of India.*



APPENDIX D.

POSTAL COMMUNICATION BETWEEN CALCUTTA  
AND KOOSHTEA.

BENGAL CHAMBER OF COMMERCE,  
*Calcutta, 2nd February 1863.*

C. K. DOVE, Esq.,  
*Post Master General of Bengal.*

SIR,—It has been represented to the Committee of the Chamber of Commerce that if advantage were taken of the facilities afforded by the Eastern Bengal Railway the postal service between Calcutta and Kooshitea, the terminal station of that railway on the banks of the Ganges, would be considerably accelerated; and that letters could be delivered there in twenty-four or thirty-six hours instead of the three days which the dak now takes.

With the extension of the railway system in Bengal it is very desirable that the postal service of these provinces should be so modified, as to admit of a simultaneous expansion, and the Committee trust you will be able to make your arrangements for the conveyance of the public mail fall in as much as possible with the progressive improvement of railway communication.

I have the honor to be, &c.,  
H. W. I. WOOD,  
*Secretary.*

No. 9759.

FROM  
C. K. DOVE, Esq.,  
*Post Master General of Bengal,*

TO  
THE SECRETARY TO THE CHAMBER OF COMMERCE.  
*Calcutta, the 16th February 1863.*  
SIR,—I have the honor to acknowledge the receipt of your letter

xiii

of the 2nd instant, and in reply beg to inform the Committee of the Chamber of Commerce that by the beginning of next month I hope to open two experimental post offices, one at Kooshitea and the other at Choodanga, on the Eastern Bengal Railway line, and to arrange for the conveyance of mails to and from those offices by the railway train on week days only, as there are at present no trains on Sundays.

With regard to the conveyance of the bulk of the mails to and from the eastern stations by the railway train I beg to state that a scheme has been proposed for that purpose, but it cannot with advantage be carried into effect until a night train is allowed to run between Sealdah and Kooshitea, and the Railway Company state that they are not at present prepared to run such a train.

I have the honor to be,

Sir,

Your most obedient servant,

C. K. DOVE,  
*Post Master General of Bengal.*

### THE AFTER-PACKET SYSTEM.

E. C. BAYLEY, Esq.,

SIR,—The late hour at which the mail contract packets pass Kedgerie and no corresponding advantage being gained by the public in respect to the posting their letters by the after-packet has induced the Committee of the Chamber of Commerce to make some inquiries into the matter, and the result is submitted for the consideration of the Honorable the President in Council.

During the past year after-packets were made up for each fortnightly mail steamer except on 23rd May and 23rd June : on the latter date the Bengal went to sea the day she left Calcutta, consequently there was no after-packet, as there was no chance of its overtaking her ; but the 23rd May mail steamer did not pass Kedgeroe till 6 o'clock the next morning, and an after-packet might have been safely sent.

On three other occasions, viz: 10th February, 23rd March, and 9th June, special arrangements were made by employing the *Celerity* and *Proserpine*, and on the two last dates the after-packet was kept open till 6 p. m.

The Committee have therefore only the remaining nineteen occasions to notice; and a reference to the annexed tabulated statement will shew that—

in 3 instances the after-packet closed at noon,  
in 2 " " " 1 P. M.,  
and in 14 " " " 2 P. M.,—  
2 o'clock may accordingly be taken as the closing hour.  
The time occupied in closing and despatching the after-packet

The average hour of arrival at Kedgeree is 4 o'clock the next morning.

The time thus taken in transmitting the after-packet from Calcutta to Kedgerie is, on the average, twelve hours.

Assuming that the mail steamer passes Kedgeree early on the day following her departure from Calcutta say 6 in the morning, and allowing time for the dāk boat to deliver the after-packet on board, the arrangements appear to be made with due regard to the convenience of the public, and under such circumstances the closing of the after-packet at the early hours of 12, 1, and 2 o'clock seems unavoidable.

But it will be observed that the hour of the steamers passing Kodgeree is not 6 A. M., but about noon, so that the after-packet which reaches that station at 4 o'clock in the morning is detained there for nearly eight hours—a delay which if previously notified to the Post Master General would have enabled that officer to give the public the advantage of an after-packet closing at the ordinary mail hour of 6 P. M.

The Committee respectfully submit that they thus shew sufficient ground for the recommendation that if that average hour of arrival at Kedgeree is continued the after-packet should be kept open till 6 o'clock in the evening instead of the ordinary hour of 2 P. M.

If however it is declared by the Master Attendant that the hour of passing Kedgeree cannot be given with any nearer approach to certainty than is now given, and if the arrangements of the Post Office, dependent on the Master Attendant's report, cannot be modified, the Committee would in such case suggest a plan by which the conveyance of the after-packet to Kedgeree may be conveniently abandoned, and the special postal service more expeditiously performed.

The Honorable the President in Council is aware that the afterpacket is conveyed by land as far as Diamond Harbour, or to a point on the river close to that station ; it is then carried across the river to a place called Kookreeluttee ; thence by runners to Kedgerree, a distance of thirty miles ; and finally placed on board the dak boat for conveyance to the steamer.

Directed of the arrangement which involves so much time, so great a distance, and so frequent changes in the mode of conveying the after-packet, the Committee suggest the following:—

That the after-packet, except on those occasions when the mail packet goes to sea, the day the leaves Calcutta or passes Kedgee so early the following day as to render it impossible for any vessel to overtake her from Diamond Harbour, shall invariably close at 6 p. m. and be carried to Diamond Harbour and there put on board the *Clarity* or other available Government steamer, which at all seasons and under all circumstances of wind, tide, and all weathers, would reach the mail packet in ample time for the safe delivery of the after-packet. The *Clarity* would follow the mail-packet instantly as far as Diamond Harbour, there anchor for the night, receive the after-packet on arrival from Calcutta, and proceed as early as possible the next morning to reach the mail steamer.

As a rule the mail steamers anchor at Cuttack, so that the *Clarity* would have but a short distance to go; and even if they went as far as Mud Point or Kedgee there would still be ample time for the *Clarity*, as from her light draft she could be moving when the mail steamer would be unable to proceed.

It appears to the Committee of the Office that this is a much simpler plan than that now in force, and they cannot conceive any objection to it other on the part of the Post Office or of the Master Atendant as far as the suggested mode of transit is concerned. It may involve a question of expenditure, and this the Committee anticipate by saying that if the Government consider the proposition as one that will entail extraordinary expenditure, which cannot be justified even on the score of public convenience, I am directed to state that as far as the commercial community are concerned they will, in order to secure the latest possible hour for an after-packet, be glad to pay a special rate so as to cover such extraordinary expenditure.

I have the honor to be, &c.,

H. W. I. WOOD,

Secretary.

Date of After-packet.	Hour Closing	Despatched from Post Office.	Arrived at Kedgee.	When put on Board.	Name of Steamer and the hour at which she passed Kedgee.	Difference of time between arrival of after-packet and the Steamer passing Kedgee.
1862.						hrs. m.
January... 10	1 p. m.	3 p. m.	2 a. m.	2 30 a. m.	Nubia..... 7 40 a. m.	11th Jan. 5 40
" " 23	noon.	2 0 "	" "	2 45 "	Bengal..... 7 20 "	" 24th " 5 20
February... 10	" "	" per Celerity.	" "	" "	Nemesis..... 10 5 "	" 11th Feb. 6 5
" " 24	" "	1 30 p. m.	0 45 a. m.	3 15 "	Candia..... 6 50 "	" 25th " 10 0
March " 9	2 p. m.	3 45 "	3 "	0 30 p. m.	Simla..... 1 0 p. m.	" 10th March. 10 0
" " 23	6 50 "	" per Celerity.	" "	" "	Colombo..... 1 30 "	" 24th " 5 0
April " 9	" "	3 30 "	2 30 a. m.	11 50 "	Bengal..... 12 45 "	" 10th April. 10 15
" " 23	" "	4 0 "	3 20 "	11 30 "	Nubia..... noon.	" 24th " 8 40
May " 9	" "	4 0 "	3 30 "	11 40 "	Simla..... 11 40 a. m.	" 10th May. 8 10
" " 23	" "	" "	" "	" "	Nemesis..... 6 5 "	" 24th " 5 0
June " 9	No After packet.	per Prosperi.	" "	" "	Candia..... 12 45 p. m.	" 10th June. 5 0
" " 23	" "	" "	" "	" "	Bengal..... 14 35 "	" 23rd " 5 0
July " 9	2 p. m.	4 0 "	5 30 a. m.	9 0 a. m.	Nubia..... 9 20 a. m.	" 10th July. 3 50
" " 23	noon.	1 30 "	4 0 "	9 20 "	Simla..... 9 50 "	" 24th " 5 50
August... 9	2 p. m.	4 0 "	7 15 "	11 0 "	Colombo..... 12 15 p. m.	" 10th Aug. 5 0
" " 23	" "	2 15 "	4 30 "	11 0 "	Nemesis..... 10 55 a. m.	" 24th " 6 25
September 9	" "	3 45 "	3 15 "	12 30 p. m.	Candia..... 12 40 p. m.	" 10th Sept. 9 25
" " 23	" "	3 30 "	4 40 "	9 45 a. m.	Nubia..... 11 10 a. m.	" 24th " 6 30
October... 9	" "	3 30 "	4 0 a. m.	12 20 p. m.	Bengal..... 12 45 p. m.	" 10th October. 8 45
" " 23	" "	4 0 "	4 0 "	9 20 a. m.	Simla..... 9 55 a. m.	" 25th " 5 55
November 9	" "	3 30 "	3 30 "	12 30 "	Colombo..... 1 0 p. m.	" 10th Nov. 9 30
" " 23	" "	3 45 "	3 30 "	1 30 "	Nemesis..... 1 40 "	" 24th " 10 10
December 9	" "	4 " "	4 15 "	1 40 "	Candia..... 1 30 "	" 10th Dec. 9 15
" " 23	" "	4 " "	3 30 "	2 55 "	Simla..... 1 25 "	" 24th " 9 35

## APPENDIX F.

### MARINE COURT FOR TRIAL OF PILOTS CHARGED WITH BREACH OR NEGLECT OF DUTY.

No. 2172.

FROM

THE HON'BLE A. EDEN,

*Offg. Secretary to the Government of Bengal,*

TO

THE SECRETARY TO THE CHAMBER OF COMMERCE,

*Fort William, the 16th October 1862.*

Marine,

SIR,—I am desired by the Lieutenant-Governor to forward, for the perusal of the

*Case of Mr. T. P. Firmin, Master Pilot, Free List.*  
Proceedings of this Government, in the Marine Department, for May 1862, Nos. 66 to 68.  
Ditto ditto for June 1862, Nos. 54 to 57.

*Case of Mr. L. MacNeill, Licensed Steam Tug Pilot.*  
Proceedings of this Government, in the Marine Department, for June 1862, Nos. 12 and 13.

*Case of Mr. J. Couture, Acting Mate Pilot.*  
Letter from Officiating Master Attendant No. 2246, dated 19th August 1862, and enclosures.  
Reply of this Office No. 1859, dated 18th September 1862.

*Case of Mr. F. H. T. Bull, Licensed Master Pilot.*  
Letter from Officiating Master Attendant No. 1702, dated 26th June 1862 and enclosures.  
Ditto to ditto No. 587, dated 16th July 1862.  
Ditto from ditto No. 1294, dated 16th July 1862.  
Ditto to ditto No. 1457, dated 22nd July 1862.

*Case of Mr. H. Heilten, Mate Pilot.*  
From Officiating Master Attendant No. 2567, dated 26th September 1862 and enclosures.  
To ditto No. 2166, dated 16th October 1862.

Marine Court, which appears to His Honor clearly to require amendment.

Chamber of Commerce, the accompanying papers relating to five trials by the Marine Court of Pilots charged with breach or neglect of duty while in charge of vessels, and I am to request the earnest attention of the Chamber to the present constitution of the

xix

2. Since the Lieutenant-Governor has had charge of this Government there have been no less than five cases in which there has been a failure of justice, both to the parties complaining and to the mercantile public generally, owing, as the Lieutenant-Governor believes, to the maladaptation of the constitution and procedure of the court to the trial of such cases. There seems to the Lieutenant-Governor to be good ground for supposing that the law as it stands does not sufficiently protect the interests of the public, and that the difficulty of obtaining a conviction against a pilot accused of breach of duty is such as practically to enable him to endanger with impunity the ship of which he has pilotage charge, with its valuable cargo, and the lives of those on board.

3. The Lieutenant-Governor will be glad to be favored with the opinion of the Chamber as to whether a change in the law is not necessary, in order to protect the shipping in this port from the effects of the carelessness and misconduct of pilots, and whether it would not suffice if a committee of enquiry, constituted as the Jury of the Marine Court now is, were appointed to report on any charge brought against a pilot, the Government being left to decide, on consideration of the Committee's report, as the exigency of the case might require.

4. It is requested that the enclosures may be returned with your reply.

I have the honor to be,

Sir,

Your most obedient servant,

A. EDEN,

*Offg. Secretary to the Government of Bengal.*

BENGAL CHAMBER OF COMMERCE,  
*Calcutta, 20th March 1863.*

THE HON'BLE A. EDEN,

*Secy. to the Govt. of Bengal.*

SIR,—The Committee of the Chamber of Commerce have had under consideration the communications from the Government of Bengal dated 16th October, 17th November, and 30th and 31st

December 1862, and the proceedings of the Marine Court by which they were accompanied.

The Committee agree with the Honorable the Lieutenant-Governor that in the majority of cases referred to in those proceedings there appears to have been a miscarriage of justice, but they are disposed to refer it to other causes rather than to a maladaptation of the constitution of the court to the trial of such cases.

Theoretically, in fact, the court appears to be well adapted for the conduct of such trials. The mercantile and shipping interests by their representatives have a majority of votes, and consequently when pilots escape punishment the reasonable inference is either that the case for the prosecution has broken down or that there has been a misdirection to the jury on the evidence by the judge.

Without entering into a lengthy analysis of the proceedings of these trials it will be sufficient to say that in the opinion of the Committee the acquittals in these cases are clearly referable to the above causes.

Entertaining this opinion, the Committee are disposed to think that no sufficient case has been made out for the abolition of the court as at present constituted, and the substitution for it of a mere court of inquiry to investigate the facts and report on the evidence as is suggested by the Lieutenant-Governor. This would in fact be to deprive the court of all authority and to leave each case to be dealt with absolutely by the executive, for the Government would not necessarily be bound to adopt the conclusions which such Court might arrive at on the evidence, but would act independently of their opinion on the advice of the marine authorities.

The Committee are fully satisfied of the entire impartiality with which such cases would be dealt with by the Government; but they think such an alteration in the constitution of the court is not desirable in the interest of the Government itself, and they believe that it would be unpalatable to the mercantile and shipping interest.

Though the Committee cannot therefore recommend what would in fact be virtually an abolition of the court constituted under Act XII of 1859, there is one point in the procedure under that Act which they think might advantageously be altered.

Section XVII of the Act provides that if the accused be found

guilty the judge shall pass such sentence as he may think fit. The Committee are of opinion that the practice under Act XXIV of 1845 should be reverted to, and that the members of the court should vote on the question of the punishment to be awarded as well as on the question of guilty or not guilty. This alteration is recommended by Captain Howe, and it has the Committee's full approval.

Another alteration which, though of less importance, it would, in the opinion of the Committee, be desirable to introduce whenever Act XI of 1859 receives amendment, is the addition of a second master of a merchant ship to the number of jurors on each trial.

With these alterations in the procedure and constitution of the court and advantage being taken of the present vacancy in the office of judge to appoint to that office a person who besides an ability properly to direct a judicial enquiry should, if possible, have some special acquaintance with nautical matters, the Committee see no reason to doubt that the court will prove equal to the proper adjudication of all cases brought before it.

I have the honor to be, &c.,

H. W. I. WOOD,

Secretary.

APPENDIX G.

PROPOSED APPOINTMENT OF A MARINE  
MAGISTRATE.

BENGAL CHAMBER OF COMMERCE,  
Calcutta, 23rd March 1863.

THE HONORABLE A. EDEN,  
*Secretary to the Government of Bengal.*

SIR,—I am desired by the Committee of the Chamber of Commerce to forward the accompanying copy of a letter addressed to the Chamber by several influential members, who are of opinion that the appointment of a marine magistrate for the port of Calcutta is highly necessary, and beg the Committee will urge such an appointment upon the attention of Government.

In submitting this communication for the consideration of the Honorable the Lieutenant-Governor the Committee would venture to recommend the establishment of such an office which they think would be attended with much advantage, and to support the suggestion that such office should be held by some fit and proper person who should not only be efficient in all other respects, but specially qualified by a practical experience of the peculiar character of sailors and other sea-faring people.

If His Honor would permit the Committee to add another suggestion to the above they would respectfully recommend that the appointment of marine magistrate be held by the officer who may be nominated as president or judge of the Marine Court for trial of pilots: such an arrangement would not they think be unattended with advantage, and the duties of both offices could be performed without detriment to the public service.

I have, &c.,  
H. W. I. WOOD,  
*Secretary.*

xxiii

H. W. I. WOOD, Esq.,  
*Secretary, Bengal Chamber of Commerce.*

SIR,—The question of suggesting to Government the appointment of a marine magistrate for this port was we believe under consideration of the mercantile community some time since, but no action was taken in the matter.

We are of opinion that such an appointment is highly necessary, and this the decisions in the majority of marine cases at the police courts sufficiently proves.

Besides those requisite qualifications to fit a gentleman for the bench, we are of opinion that one having practical knowledge of the character of seamen is essentially necessary to adjudicate on the many marine cases of daily occurrence by reason of the increase of shipping now visiting this port.

We should be glad if the Chamber would take up the question and urge such an appointment as "Marine Magistrate for the port of Calcutta" upon the attention of Government.

We are,  
Sir,  
Your's faithfully,  
GRANT, SMITH AND CO.  
COLVIN, COWIE AND CO.  
PR. RALLI BROTHERS.  
P. T. RALLI.  
JOHN BORRAIDALE AND CO.  
JENKINS, DEARMAN AND CO.  
PEEL, BELLAIRS AND CO.  
GEO. HENDERSON AND CO.  
MACKEY AND CO.  
CROOKE, ROOME AND CO.  
MACKINNON, MACKENZIE AND CO.  
JNO. OGLE AND CO.  
JARDINE, SKINNER AND CO.  
BRADDON AND CO.

CALCUTTA,  
March, 1863.

## APPENDIX H.

### MERCHANT SHIPPING ACT.

#### DESERTION OF SEAMEN.

GENERAL SHIPOWNERS' SOCIETY,  
12, ST. MICHAEL'S ALLEY, CORNHILL,

LONDON, 11th November 1862.

SIR,—Your letter of the 18th July respecting certain cases of abandonment of duty by British seamen at the port of Calcutta, with copy of correspondence from Messrs. Gladstone, Wyllie and Co., I have had the honor to lay before the Committee of this Society at its meeting this day, and I am directed to say that the subject shall receive from them that attention which it calls for, and that they will forthwith put themselves in communication with the Lords of the Committee of Privy Council for Trade regarding it—whose reply when received I shall have the pleasure of forwarding for the information of the members of your Chamber of Commerce.

I have the honor to be,

Sir,

Your most obedient servant,

WM. DONAR,

*Secretary.*

H. W. I. WOOD, Esq.,

*Secretary, Bengal Chamber of Commerce.*

## APPENDIX I.

### THE ELECTRIC TELEGRAPH.

3, STOREY'S GATE,  
ST. JAMES' PARK,  
LONDON, 27th October 1862.

H. W. I. WOOD, Esq.,

*Secretary to the Chamber of Commerce.*

DEAR SIR,—By this mail I send you a copy of a letter I have addressed to the chairman of the East India Railway on the subject of telegraphic communication in India. Should the railway company consent to treat with a private company I have formed a powerful board who are quite ready to take the matter up, and are only waiting for a reply from the railways. I am firmly convinced that to carry out the scheme properly and to work the telegraph satisfactorily there should be an independent company. There ought to be two wires at least devoted to the Bombay traffic, with ramifications to Galle and Kurrachee. You are doubtless aware that it is in contemplation to complete the telegraph via the Persian Gulf to Kurrachee by January 1864, and this will make it absolutely necessary to extend the wires from Bombay to Kurrachee. It will also be necessary to extend the line to Galle, as the line from Kurrachee to Galle will in fact form a part of the line of communication to Australia which will be carried out sooner or later.

It will be self-evident to you that for the railway companies, with their separate interests, and severally and in detached sections, to undertake a comprehensive scheme like the above, foreign to their enterprise, cannot otherwise than result in a continuation of the present unsatisfactory system. If the railway companies attempt the work with their existing wires it will be a complete failure; if they erect special wires the scheme will still be hamper-

ed with delay, and the object frustrated from want of a unified and perfect organization.

That the work can only be done properly by a separate company, working amicably in conjunction with the railways, is my firm opinion, in which I think you will agree with me; and I trust the Chamber of Commerce will render me every assistance in their power to hasten the completion of a system of telegraphs throughout India that shall give the utmost satisfaction.

Mr. Peel and Mr. Clark who are associated with me in the undertaking have seen Mr. Grant (formerly deputy chairman of your Chamber) who goes out by this mail and has promised every assistance in his power.

Believe me,

Yours very truly,

CHARLES C. ADLEY.

*From C. C. ADLEY, Esq., to R. W. CRAWFORD, Esq., M. P., Chairman of the East Indian Railway Company, &c., &c.*

LONDON, 15th October 1862.

SIR,—I have the honor to address you on the subject of commercial telegraphic communication in India, in connection with the Indian railway system.

You are aware that some time ago the Government of India offered to any private company, that might be formed within a given time, the construction of an additional line of telegraph between Calcutta and Bombay, which was urgently required to meet the wants of the public, and which the Government were contemplating erecting themselves.

Proposals were made to the Government of India for the formation of such an independent telegraph company, and certain conditions solicited. These conditions were of such a stringent nature that it appeared doubtful whether the Government of India would accede to them; and in anticipation of such an event, an alternative course was suggested, viz., to allow the East Indian Railway and the Great Indian Peninsular Railway to provide the public with the necessary accommodation.

The Government of India, in reply to these proposals, declined to grant the terms sought for by a wholly independent private company; but they have met the alternative course proposed in a most liberal spirit, and, not confining themselves to the two railways above-mentioned, they have granted to the whole of the Indian railways the concession of sending private and commercial messages without restriction. This concession has been publicly notified in the *Calcutta Government Gazette*, and a copy of the letter addressed to me by the Secretary to the Government of India in the Home Department, on the subject, is appended for your information.

This liberal and comprehensive concession therefore extends over a wider area than at first contemplated, and virtually throws open the bulk of the Indian telegraphic correspondence to private enterprise, in connection with the Indian railway system.

The question therefore arises, whether, under these enlarged circumstances, it would come properly within the scope of the various Indian railway companies to combine together and carry out a comprehensive system of internal telegraphic communication, or whether this would not be better done through the medium of a private company, working amicably in conjunction with the various Indian railways.

The subject is a most important one, so intimately is it allied with the well-being of the railway telegraph and the interests of the railway companies. It is also a very difficult one to grapple with; but I will endeavour to lay it before you *in cæcensu*.

Let me premise by stating that, if all operations were to be confined merely to the line between Calcutta and Bombay, and all views contracted within the short-sighted limits of the present day only, there might be less difficulty in the two railways directly concerned forming a kind of joint stock amalgamation to carry out the necessary measures between the above-named places; but, doubtless, it will be self-evident that the more business-like course is to take advantage of the wider range of operations now thrown open, and to form, in conjunction with the various Indian railways, a complete organization, which, passing along the great highways of Indian commerce and traffic, shall give to the mercantile, commercial, and banking interests of India that perfect, swift, and reliable system of telegraphic communication of which



they stand so greatly in need, and which is everywhere notoriously acknowledged as a crying want.

The great bulk of the existing telegraphic traffic of India passes at present between Calcutta and Bombay, and Calcutta, Madras, and Galle. In the course of about one year, it is contemplated that the break in the communication between Kurrachee in India and Bagdad in Persia will be filled up by the Government of India, and thus telegraphic communication between England and India will be established, via the Persian Gulf. When this is accomplished, the great routes of telegraphic traffic will run from Kurrachee to Bombay and Calcutta, and from Kurrachee to Bombay, Madras and Galle. These routes will also become the more valuable, should the Telegraph to India Company hereafter take steps to restore their line from Jubal to Kurrachee, and throw an increased traffic on the line. Moreover, should the telegraphic system be carried on to Australia, as now being mooted, the line from Kurrachee to Bombay and Galle will necessarily become a portion of the main route of communication.

If you will turn to the accompanying map, you will see that the Indian railway system constructed, in progress, or in temporary abeyance, embraces in reality, or nearly so, the above-mentioned main routes of internal telegraphic communication. There are only some small short breaks where no railways have ever been projected, which will require to be filled in in order to complete a perfect and united system from one extreme of India to the other. Upon the map the railway telegraphs open are shown by a black line; those in course of construction by a broken black line; and where both railway and telegraph are in abeyance by a crossed black line; the commercial wires proposed to be erected, and the breaks required to be filled in, are shown by a thick red line.

The lines sketched on the map have been based upon the acknowledged and indisputable axiom that in order to convey commercial and private messages the wire or wires used for such business must be devoted exclusively to it. This is the only way to work a commercial telegraphic business with credit, advantage, and complete satisfaction to the public. I am firmly convinced that the wire or wires erected by the railway companies for railway purposes, will be altogether inadequate to meet the great through message traffic. The railway wires will find ample employment in convey-

ing the local traffic and local business created by a railway, which business will increase with every mile of railway opened. Whatever may be the capacities of any the East India Railway wires to convey private messages at the present moment, I am more than confident that when the railway opens throughout to Benares and Allahabad, the local business created by the railway will be so great as to render the wires quite incapable of participating in any of the great through message traffic. Indeed I am not so certain but that it will be found necessary, eventually, to erect an additional wire to accommodate even the railway telegraph traffic. Moreover, there is always this great and insuperable drawback against employing the *bond fide* railway wires for private messages. Whenever an accident occurs, the railway wires are always so entirely occupied with messages from the traffic, locomotive, and permanent way departments following each other in rapid succession, that all extraneous business has to be thrown aside for a longer or shorter period, until the derangement to the railway traffic is re-adjusted. On such occasions, I have known the railway wires to have been occupied exclusively on railway business from six to twelve hours at a time, and have received complaints from the traffic manager if any private messages delayed or interrupted the more important and urgent business of the railway. Interruptions of this nature, and the actual closing of the wires from the public for six to twelve hours at a time, would be ruinous to the great through commercial and private business, and little better than a perpetuation of the existing most unsatisfactory system. It would also drive the traffic off into other channels, and give rise to competing telegraph lines. It is quite clear, then, that one or more separate and distinct commercial wire or wires must be provided, and exclusively devoted to all private and commercial business.

You will observe, then, on again referring to the map, that the lines that will eventually be required to form a perfect network of inter-communication throughout India, are as follows. —

To be constructed forthwith on railway posts —

Two wires Calcutta to Allahabad and Bombay	... 1,467 miles.
One wire Bombay to Sholapore	... 290 "
One wire Cuddapah to Madras and Salem	... 310 "

Breaks to be filled up forthwith —

Two wires Sholapore to Cuddapah	... 375 "
---------------------------------	-----------

Two wires Salem to Trichinopoly and Ceylon	...	250 miles.
One wire from Mannar to Point de Galle	...	250 "
To be completed by opening Persian Gulf Line—		
One wire Bombay to Baroda and Hyderabad to		
Kurrachee	...	468 "
Two wires Baroda to Hyderabad	...	410 "
One wire Allahabad to Agra and Mooltan	...	940 "

The cost of erecting these lines, including all branch lines to adjacent towns, lines within the chief cities and towns, with all incidental and other charges, I have estimated as follows:—

	£
Calcutta to Bombay	80,000
Bombay to Madras and Galle...	90,250
Deduct, to be afterwards refund-	
ed by Railways	18,000
	<hr/> 81,250
Bombay to Kurrachee	66,850
Allahabad to Lahore and Mooltan	26,500
	<hr/> £254,600

The total capital thus ultimately required will be about £260,000, and this would form a complete network of telegraphs from one extreme of India to the other, linking together the various disjointed railway telegraphs, extending over a length of 5,600 miles, and embracing all the telegraphic traffic of India of any value.

The first line to be constructed would be from Calcutta to Bombay, with branches from Calcutta via the Mutlah Railway to Kedgerie, to Moorsshedabad, to Dacca, to Maldah, to Ghazepore, to Benares, with lines within the cities and towns of Calcutta, Benares, Mirzapore, and Bombay. The whole of this would cost about £80,000. This line should be completed forthwith, for every day's delay only affords a pretext for other competing lines to be started. The next line to follow rapidly on the above, would be that from Bombay to Madras and Galle, by filling up the existing breaks between the railway telegraphs, which are not likely to be made for some years to come. If thought advisable, however, the con-

struction of this line might be delayed till a later period, unless the pressure from without should render it necessary to hurry the project towards completion. The remainder might be delayed a while according to circumstances, but it must be borne in mind that the plan sketched out is what is absolutely necessary to develop the telegraphic traffic of India to its fullest extent, and which must be carried out sooner or later.

Having thus dilated on the subject, and endeavoured to convey to you some idea of the comprehensive nature of the scheme, I will proceed to notice the question as to whether the work would be better done by the railway companies conjointly, or through the medium of a private company.

The main, if not the only, argument in favour of the railway companies doing the work themselves in combination is this:—

A reduction of the working expenses on the railway telegraph, by carrying the profits gained upon the commercial wires to the credit of the railway wires. These profits may become so large as to cover the whole cost of maintenance and working of the railway telegraph, thus enabling the railway company to have all their own work done for nothing, besides even possibly paying a dividend upon the whole of their telegraphic capital.

The arguments that can be advanced on the opposite side are as follows:—

1st. To carry out the measure successfully would require a perfect organization, and more extensive machinery than the railways possess.

2. It would form a distinct business of itself, and involve an infinity of detail that would hardly come within the scope of a railway company.

3. A responsible board, who will devote their attention to their own and the general interests, on whom the public can rely and to whom they can appeal, would give more prominence, stability, security, and confidence to the public, than if that responsibility were scattered over a number of disconnected sections of separate railways.

4. A private company, working with unguaranteed capital, would be capable of immediate action, and have the ability to execute works without delay, and without perpetual references. It would form a combined and powerful organization, which by

opening out the extremes of India in conjunction with the railway system, could not fail to be otherwise than mutually beneficial to both. On the other hand, the want of such a united and perfect organization would be fatal to the enterprise, and deprive the local railway routes of an amount of business which they might not obtain for years to come, and possibly not at all.

Such are the main arguments that may be advanced on both sides of the question, and I submit them for your consideration.

I have also thought it advisable to take the opinion of Messrs. Sir Charles Bright and Latimer Clark who, as engineers to the Electric and International and Submarine and British Telegraph Companies, have had the most experience in the management and working of commercial telegraphs in England, and a copy of their letter is enclosed. You will observe, that the tenor of it is against the railway companies doing a *bond fide* telegraph business; and it would seem at first sight that such a business is as distinct from the railway as the collection and delivery of the mails, or any other similar separate service. You will also see that they have in contemplation the formation of a private telegraph company for India.

I will now proceed to the financial part of the question, and show the probable profits to be derived from the undertaking.

For this I must refer to the latest published reports of the Government of India on the telegraph.

I find that, during the six months of November, December, January, February, March and April in 1858-59 and 1859-60, the receipts were as follows:—

	1858-59.	1859-60.
November ... ..	24,158	29,430
December ... ..	25,685	38,461
January ... ..	29,892	40,078
February ... ..	29,563	42,873
March ... ..	31,451	40,960
April ... ..	32,956	41,534
	<u>Rs. 173,705</u>	<u>Rs. 233,336</u>

If we double these amounts, it would give, as receipts for each year, Rs. 347,410 for 1858-59, and Rs. 466,672 for 1859-60 the actual receipts for the above, according to the Government returns being Rs. 233,105, and Rs. 423,901 during the two years respectively. My object in doubling the receipts for the six working months, and taking that as the annual revenue is, because these being the dry months, the telegraph works more regularly, and the public have a certain confidence in it; but, directly the rains set in, the constant interruptions and delays to the lines (which can be avoided) makes the traffic fall off considerably. No accounts have been published, to my knowledge, since 1859-60; but the traffic has increased greatly, there being in 1860-61 an increase of 38,017 messages over 1859-60, as the following will show:—

	Total Number.	Private.	Government.
1858-59 ...	157,834	101,164	56,670
1859-60 ...	202,434	170,566	31,868
1860-61 ...	240,451	208,583	31,868

In fact, the traffic has increased largely every year, and from a newspaper received only a couple of mailbags from India, I observe it stated that the Government *Gazette* had announced that the "lines were choked with messages." According to the above ratio, however, in the increase of the messages, it would appear that in 1860-61 the receipts would have increased to £38,298; and further supposing the Government lines working well all through the year without any interruptions during the rains, the receipts would have approached something like £64,167.

But these receipts must be looked upon as the minimum only, for it is a notorious fact that the telegraph system in India is anything but properly developed; and there can be no doubt that once a safe and reliable system were established, which worked with accuracy and rapidity through all seasons of the year, the amount of correspondence that would be carried on would surprise the most sanguine expectations. In support of such a view, I would allude to the fact, that the messages sent by the native bankers and merchants increased from 39,724 in 1858-59, to 71,554 in 1859-60, being an increase of nearly 75 per cent. This is a most important item, as it shows, that the natives, who are always slow to adopt an improvement, will adopt it when to their advantage to do so.

I find further, on referring to the Government reports, that about three-fourths of the business on the Government telegraph, passes over the Calcutta and Bombay, and Madras and Galle lines. If, therefore, calculating from the Government returns, we take the receipts in the year 1860-61 at £58,298, we should have about £43,723 passing over the above lines. If, again, we assume as the probable returns the higher sum of £64,167, we shall have the gross annual returns about £48,125.

Taking, then, the present returns as £43,723 a year, and deducting from this about £25,000 for working expenses, we shall have about £17,000 for a dividend, which will be more than 10 per cent. on the capital outlay.

Having thus laid before you the salient features of the question, I must now leave the matter in the hands of yourself and the directors to decide on the best course to be pursued in carrying out the undertaking.

If I have not made myself sufficiently clear I shall be happy to wait on you and supply any further information in my power.

I have the honor to be,

Sir,

Your most obedient and humble servant,

CHARLES C. ADLEY.

No. 4004.

From E. C. BAYLEY, Esq., Secretary to the Government of India,  
to C. C. ADLEY, Esq., 3, Storey's Gate, St. James's Park,  
London.

Dated Fort William, 6th August 1862.

SIR,—I am directed to acknowledge the receipt of your letter, dated the 10th of June, on the subject of the establishment, by private enterprise, of a line of telegraph between Calcutta and Bombay.

2. In the sixth paragraph of your letter, you specify certain conditions as being necessary to form the basis of the terms of any agreement that may be entered into between the Government and the proposed telegraph company.

3. The first and second of these proposals (quoted in the margin)

"That the Government of India grant to the proposed telegraph company the exclusive privilege of erecting a private telegraph between Calcutta and Bombay, and that, during the existence of such a company and their affording full satisfaction, no other company or companies shall be allowed to convey any private messages between the above places of any kind whatsoever."

"2. That the Government shall not compete with the proposed company in any way whatsoever, but will reserve their own line exclusively for Government purposes."

the Governor-General in Council is unable to accede to. The Government charges, it has been already announced, will not be reduced below their present rates, or below any lower rate which a private telegraph company on the same line may hereafter adopt, and on this point no further concession can, the Governor-General in Council conceives, be fairly asked by any private company, nor would it be consistent with regard to what is justly due to the public interests to grant it.

4. With regard to the alternative course suggested in your letter, that permission should be given to the railway companies to accommodate the daily increasing wants of the public, I am desired to state that the Government has determined to withdraw, generally, the restriction at present placed on railway companies, as to the conveyance of private messages from and to places between which there may be a Government telegraph, and the railway companies will, therefore, be free in future to receive and forward such messages, irrespective of the existence of Government lines of telegraph. This concession will be at once notified in this country.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) E. C. BAYLEY,

Secretary to the Government of India.

1, VICTORIA STREET, WESTMINSTER,

October 9th, 1862.

DEAR SIR,—With reference to our interview with you on the subject of the conveyance of commercial messages for the public

over the lines of railway companies, we beg to inform you that in this country such a system is not found to work satisfactorily, owing to the comparatively limited range over which the operations of any single company extend. In Europe all the business is done through the agency of Governments or companies, who devote their exclusive attention to the subject, and organize an universal system over large areas with ramifications extending to all the principal towns. They also, in many cases, maintain the railway telegraphs, and receive annual payments usually of from £3 to £5 per mile for their service; between a few of the largest towns only they maintain the railway companies' wires gratis, in return for right of way. Wherever the transmission of private messages has been attempted, it has been found, owing to the necessary precedence given to railway business, it has failed to give satisfaction to the public, and has occasioned much complaint, and at the same time has interfered seriously with the working of the railway traffic by occupying the wires and taking up the time of the officers; in fact, it has not been regarded as appertaining to the business of a railway company.

It is but right we should inform you that, during your late visit to India in connection with the telegraph to India company, we were in communication with the Indian Government on the subject of the formation of a system of commercial telegraphs in India, and at the present time the board of a new company for this object is nearly organized, and they purpose, by arrangements with the Indian Government and railway companies, and by the erection of new lines, to form a complete system of Indian commercial telegraphs.

It is their intention to apply to the East Indian Railway Company for permission to erect wires on their line as part of a general system, and they would probably be prepared to pay for this privilege as much as could be gained by working the local traffic only.

We are, dear Sir,

Yours faithfully,

(Signed) BRIGHT AND CLARK.

# APPENDIX J. (I.)

## COTTON CULTIVATION IN THE PUNJAB.

No. 931 of 1862.

FROM  
THE SECRETARY TO GOVERNMENT, PUNJAB,  
TO  
THE SECY., BENGAL CHAMBER OF COMMERCE,  
CALCUTTA.

Dated 13th December 1862.

Revenue Department.

Forwards extract paras. 133 to 139, and appendices Nos. II. and IV. of Financial Commissioner's report for the year 1861-62, as containing the information required by the Chamber of Commerce, Bengal.

By order, &c.,

R. H. DAVIES,

Secretary to Government, Punjab.

### APPENDIX No. 4.

Extract from letter dated 13th September 1862.

ADDRESSED BY J. C. MURPHY, Esq.,  
TO FINANCIAL COMMISSIONER, PUNJAB.

5th.—The results of my experiments, with the different descriptions of cotton which I tried, may be briefly stated thus.

6th.—Indian cotton ordinary crop, produced per beegah, of 3,025 English square yards, 12 maunds of kupas, yielding at from 12 to 14 seers of cleaned cotton per maund, from 3 maunds 24 seers to 4 maunds 8 seers; the cost of gathering having been previously paid out of the cotton. I forget now, whether an eighth or tenth

of the quantity picked was the rate. These rates of produce are equivalent to from 5 maunds  $20\frac{1}{2}$  seers to 6 maunds  $28\frac{1}{2}$  seers per acre; in maximum crops, I have heard, and, from my own observations, believe, that the out-turn of cleaned cotton frequently is as much as 5 maunds per beegah, or 8 maunds per acre.

7th.—The Sea Island cotton, a most beautiful article of a transparent whiteness, with a slightly bluish tinge, affording the finest fibre, though perhaps not the longest staple, I found could not be depended upon. If I remember rightly, the imported seed did not germinate freely; and of the plants which came up many were blasted by the first season of hot winds, and of those that survived the rains many more were killed out and out by the frost of the ensuing winter, so that the results were extremely unsatisfactory. The seed of the first generation not succeeding better I gave up this description altogether.

8th.—The Nankin cotton was altogether a worthless product. The peculiarity about it was its rather deep red colour which no bleaching could reduce, the colour extending to the very seeds. Its yield did not exceed about 2 maunds per beegah of 3,025 yards, and it was otherwise obviously unsuited to the soil and climate.

9th.—The Egyptian cotton also did not promise well; while apparently suited to the soil and climate, and yielding a produce somewhat superior, it seemed to possess no advantages over the common indigenous cotton of the country which might not be successfully attained by the improved cultivation of the latter.

10th.—The New Orleans cotton was the description, decidedly adapted for this country. The imported seed germinated freely; the yield the very first gathering, that is in the autumn succeeding its sowing, was equal to, if not larger than, that of the indigenous article; the fibre was beautifully fine and smooth, and the staple from an inch to an inch and half in length. Some samples of what I grew were sent to Manchester by Mr. Smith, and were declared to be barely inferior to the best description of extra fine imported from the Southern States of America. The seeds of the first, second, and third generations showed no perceptible deterioration, while the spring and autumnal gatherings, from the plants raised from the original imported seed, went on increasing yearly in quantity.

11th.—Always taking a great interest in the cultivation of cotton

in this country, I have been left no time, by my public duties, especially within the last ten or fifteen years, to add to the experience obtained more than twenty years ago. I have, however, read with interest, succeeded by disappointment, accounts of many experiments made since then with the view of developing the capability of India as a field for the production of cotton. The one special point in which these accounts have invariably caused me disappointment was the quantity of the produce per acre.

12th.—With the general impression so strong against my convictions on the subject, I would need to be cautious in asserting the results as to the produce obtained by myself, were I not in a position to claim credence for them on calculations having in them something of the precision of mathematical demonstration.

13th.—The acre contains 4,840 yards. As the natives sow cotton broad-cast, I may say nine plants at the very least might be assigned to each square yard. At this rate, the plants should be of fair ordinary health and growth. Let it be assumed that each of these plants would bear at the lowest estimate ten full and perfectly uninjured capsules, each capsule would give 27 seeds, and half the weight of the 27 seeds in cleaned cotton. The weight of the 27 seeds would be more than the tenth part of a rupee as may be ascertained any day by weighing 250 healthy seeds taken from the cotton seed selling in the market, which would weigh about a rupee. Hence the account for an acre would be thus: 9 plants in 1 square yard  $\times$  10 capsules from each plant  $\times$  27 seeds in each capsule = 2,430 seeds,  $\div$  250 seeds, weighing 1 Rupee = (nearly) 10 rupees, or 2 chittacks  $\times$  4,840 square yards = 15 maunds 5 seers of cotton seed, the produce of an acre, that is two-thirds of the gross out-turn in kupsas, the remaining third, 7 maunds  $22\frac{1}{2}$  seers being the cleaned cotton, the produce of an acre.

14th.—I mentioned my estimate of the produce of cotton to you on the 21st ultimo; and, strangely enough, only four days after, by the merest chance, I read in the *Delhi Gazette* of the same date, a notice of the cultivation of cotton in Australia, in which the produce is said to have been 600 pounds, or 7 maunds 30 seers per acre, grown in unprepared land without any knowledge of the cultivation. This result would appear to have been from one gathering. I enclose the account to which I allude.

15th.—The main causes for full results not having hitherto been obtained from New Orleans cotton in, I may say, all the experiments made on any considerable scale in India, would appear to me to have been chiefly sowing at wrong seasons of the year, and defective methods of sowing, combined with neglect of proper care in weeding; clearing the plants of rotten and decaying branches, leaves, flowers and capsules, and watering at improper times, that is, sometimes before and sometimes after it was absolutely required.

16th.—The selection of the soil is by no means a difficulty. All varieties of equally productive soils have appeared to me equally well adapted for cotton. Thus for instance, wherever sugarcane, wheat, or gram grows luxuriantly, it may be expected that cotton will thrive equally well.

17th.—Out of the tropics, the most appropriate season for sowing is from the 15th to the end of April. The sun has then acquired sufficient heat to produce healthy germination, and time is gained to admit of the plants attaining a strength and growth, qualifying them to resist the frost of the ensuing winter.

18th.—The mode of sowing is the next matter. Professor Royle, in a paper on cotton cultivation, drawn up in 1834, recommended sowing in lines to facilitate the circulation of air; and according to it, in most experiments which I have seen, the sowings have been in parallel drills from two to three feet apart; but beyond this, there has been little or no attention to the preservation of uniform distances between the plants, for in the drills they have been, in some places, more or less crowded, and in some more or less apart. The American method, I believe, is and this is the one I pursued, to have the field divided into square yards; to dig circular holes at the intersections of the lines forming the squares, about a foot in diameter, and 6 or 8 inches deep; to have these holes half filled with rich mould, and the mould well mixed with the soil below. The holes are then watered to cause the mould to mingle well with the soil, and fifteen days or so after the ground is fit for sowing. Six or eight selected healthy seeds are put down in each hole at equal distances, about two inches under the surface. Eight or ten days after the seeds have germinated two or three of the weakest plants should be pulled up out of each hole, and those remaining should be allowed to grow together for a week or so more when

another removal of the weakest plants from each hole should be made, and so on till one, the healthiest plant of the lot, is left in each hole.

19th.—After the plants have attained a growth of 10 or 12 inches, too much care cannot be observed in frequent weeding, cleansing the plant of decaying branches, leaves, flowers and capsules; and also in removing all decaying vegetable matter from the ground. Care in this latter particular is of the greatest consequence to ensure good quality, as in case dry leaves or grass are allowed to lie about the roots, a peculiar species of insect is bred, which punctures the capsules and deposits its larva inside. These larvae are hatched into grubs in the capsule and seriously damage the cotton in more respects than one.

20th.—The watering, of course, depends upon the requirements of the crop, according to the season of the year, too much moisture being nearly as baneful as too little. In the rains the flooding of the fields should be prevented by drainage when necessary.

21st.—The gathering and preparing for the store room are also processes which need much attention, and if it is wished I will refer to them in a future letter.

*Extract Par. 133 to 139 of Financial Commissioner's Annual Report on Revenue Administration for the year 1861-62.*

133rd.—I have left to the last my remarks on the article which is the most important of all at the present time, viz: cotton—and I annex to this letter, as Appendix No. II, a statement of the area cultivated last year, so far as this has been ascertainable, in juxtaposition with that of the year preceding. From a comparison with the statement (marked I) which accompanied my last report, it will be seen that in no division does the area of last year accord in the two statements, and the cause of the discrepancy is not explained. In the aggregate however, there is no great difference, the present return showing 4,81,351 acres, against 4,07,513, in the former one. The chief increase is in the Delhi division, of which the former returns must have been altogether erroneous; but from the mode

in which the returns have this year been obtained, I fully believe the present to be the most correct.

134th.—The return for the present year gives an aggregate of 5,47,414 acres, being an increase upon last year, of 66,063 acres which is much less than might have been expected from the most unprecedented prices which have latterly ruled in the markets; and the great excitement prevailing in regard to it, at the Presidency towns more especially. Last year the price of cotton, as shown by the returns then submitted, ranged from ten to about twelve rupees per maund. Now the price of fair cotton at Kurrachee has, I believe, risen from twenty-five to thirty rupees, and is expected to reach thirty-five or forty, if the excitement continue; and whereas at this time last year, the native dealers appeared quite unconscious or indifferent, and I believe the only persons who then thought of exporting largely, were Messrs. Cope and Co. of Umritsur; now it is said that people are going about from village, purchasing every seed they can procure, at prices not heretofore thought of. Every effort was made by district officers, to whom a circular was issued for the purpose early in the sowing season, to rouse the agriculturists to a sense of the importance of the crisis; but it would appear not to have been until advices from Bombay and Kurrachee worked conviction on the minds of the trading classes, that it began to be apprehended—too late to have much effect on the sowings of the present season—inasmuch that in many districts, it will be seen the area sown has actually fallen since last year—owing mainly to the continuance of the rains when they first set in.

135th.—Still there has been, as above stated, some increase—and it is estimated that 6,02,466 maunds will be produced at the least; if the season prove as favorable as it promises at present to be. Of this quantity district officers assume that not more than 1½ lakh of maunds (ten millions of lbs.) will be available for export—but I feel pretty sure myself that four times this amount will be exported during the current year, if the same high prices continue, and the means of transport be available. Even at the end of May last, after the close of the year, Mr. Cope assured me that at least 10,000 maunds had been purchased for export within one week in the vicinity of Umritsur; and since then further purchases have been constantly going on, showing how much more may be forthcoming on an emergency than is ordinarily supposed.

In the same letter, that gentleman added,—“The export of cotton will add about three lakhs to agricultural returns in these parts—and if it continue the result will be much larger,” an estimate which I am, by no means, inclined to regard as excessive.

136th.—The greatest difficulty experienced, I fully expect, will be in regard to means of conveyance, as there are at present no presses in the Punjab except one screw press made over some years ago, by Government to Mr. Coates at Ferozepore, and two Hydraulic presses, which he is now setting up entirely at his own cost; there is little likelihood of its being possible to get cotton pressed to any large amount—and without this, steamers are unwilling to take it as freight; all is being done, I believe, that is possible with the means at command, to open out and improve roads for the conveyance of cotton, but the available land carriage of the country is limited. Our rivers are undoubtedly our natural outlet, and if anything can be done towards securing a larger number of boats on these, at the time when the cotton crop ripens, it would I think be wise to adopt every available expedient to this end.

137th.—The opinion appears to be now becoming more and more general, that the variety of seed best adapted for this province generally, is the Egyptian; and in this view I was authorized by Government,\* at the beginning of the rains, to avail myself of an offer made by Mr. Cope to sow on behalf of Government two maunds of it, which he had succeeded in securing, so as to increase as much as possible the supply of seed for next year's sowing. There seems to be little or no doubt, that April is the proper time to sow this description of seed, so that as this was not sown until the beginning of the rains, it is probable that the crop of cotton will not be large, but a good supply of seed may I trust be looked for. Mr. Cope is endeavouring at the same time to obtain further supplies from other quarters, and that gentleman is entitled to our cordial acknowledgments for the enthusiasm with which, apart from his own interests, and sometimes apparently even in opposition to them, he enters into every project for the introduction of new products, or improvement of existing ones, and for the valuable information and suggestions which he frequently affords.

138th.—While, however, there is every reason to believe that imported varieties of cotton will prove greatly superior to the ordi-



nary indigenous varieties, there can be no doubt that very much might be done to improve the produce of our existing species, and of the crops ordinarily raised by our cultivators, by greater care in picking, by better selection of seed reserved for sowing, and by adopting all such arrangements as are found to render the fibre better adapted to the Europe markets. A better proof of this could hardly be desired than what is afforded by the very energetic and successful experiment made by Mr. L. Berkeley at Delhi, to which the Commissioner refers; and now that machinery is being adapted, by some of the Manchester spinners, to suit it for working up Indian cotton, this has become a matter of greater importance than ever. I understand that the best Indian cotton now sells in England at 16½ pence per lb., and could some of our European capitalists connected with the cotton trade be induced, after the example set by the Delfast Association in regard to flax, to send out agents to this country capable of instructing the people, and authorised to give prices varying with the excellence and cleanness of the cotton produced; two or three years would see a vast change effected. I subjoin three extracts,\* relating to the cotton raised by Mr. Berkeley which will be read with interest.

\* "1. The cotton alluded to was raised in a piece of land in the old cantonments of Delhi from picked indigenous seed. No particular care was taken in its cultivation. It was carefully picked and cleaned, and the common Indian gin was used to separate it from the seed. I am certain that by a better mode of cultivation the indigenous cotton is capable of great improvement."

"2. A sample was sent through Colonel Browne, late Commissioner of Delhi, to the Cotton Association in Manchester—and the value was fixed by competent Judges at 11 pence per pound, and a very favorable notice made of it in the English papers."

*Extracts from the Cotton Supply Report published in the Overland News.*

"Lieutenant Colonel Browne, late Government Commissioner at Delhi, who is now in England, has submitted to the inspection of the Association, a sample of indigenous cotton grown at Delhi, by L. Berkeley, Esq., which, for color and cleanness, can scarcely be surpassed; its staple is very short, yet owing to its beautiful condition, it has been valued at 11d. per lb.

NOTE.—"Since the above was written, and while this report is undergoing transcription, I have received a communication dated 12th September, from Mr. J. C. Murphy, Judge of the Small Cause Court at Umritsur, in which he states that the produce per acre of 4,840 square yards obtained from Indian seed, in some

1329A.—In my last report I expressed the opinion that the Punjab could not compete, as a cotton producing country, with portions of the Bombay presidency and of Hyderabad and Nagpore, which have long been distinguished as supplying the very best descriptions of cotton, and although I still believe this to be true, supposing the demand to be limited, yet with the enormous demand now existing, it is clearly the interest and the duty of every portion of the empire, in which cotton is grown, to do its utmost towards swelling the supply—and from what has been said above, it may be assumed with certainty, that we know as yet but little of the improvements which skill and capital may effect even here. The accompanying return gives the average produce of cotton fibre per acre in the Punjab, in anything like a tolerable year. The Hissar return gives 150lbs., and Mr. Cope informs me that his enquiries lead him to believe that 150lbs. is a fair average about Umritsur, 180 or 200lbs. being considered a good crop, and as much as 300lbs. being gathered in exceptionally favourable years. I observe it stated in Parliament by Mr. Caird, that in Darwar the average produce had been increased, by the introduction of Egyptian cotton seed, from 90 to 200lbs. per acre.

experiments made by him in the vicinity of the Eastern Jumna Canals about 29 years ago, under the auspices of Mr. Smith, Commissioner of Customs, was from 5 maunds 20 seers (460 lbs.) to 6 maunds 28 seers (536 lbs.), of cotton fibre, and in maximum crops, he believes the out-turn to be as much as 8 maunds (540 lbs.) It is to be observed however that the soil in that quarter which is now, as it was then, under the Government, N. W. Provinces, is generally highly productive, and possesses every facility for abundant and timely irrigation—while Mr. Murphy estimates the fibre at one-third of the entire out-turn; which is certainly much more than the average obtained in the Punjab.

"Mr. Murphy also notices a communication from Australia, published in a Calcutta paper, which had already attracted my own attention; announcing that New Orleans Cotton grown in the district of Moreton Bay, had yielded, in one instance, 600 lbs. of clean cotton to the acre; although the land was not especially prepared for the crop, and little was known about the cultivation."

"Mr. Murphy's letter is so interesting, and contains so much that may be useful to those in a position to promote the growth of cotton and improvement of its culture, that I annex a large portion of it as appendix No. 4."

# APPENDIX II.

Comparative Statement of the extent of Cotton Cultivation in the Punjab, 1861 and 1862.

Division.	DISTRICT.	Area ascertained or estimated to have been sown in 1861.	Area sown with Cotton up to July 1862.	AVERAGE PRODUCE PER ACRE.				Probable Total Produce of Cotton Fibre only.		Probable amount available for exportation.	
				Cotton Fibre.		Seeds.					
				Mds.	Seers.	Mds.	Seers.	Mds.	Seers.	Mds.	Seers.
Delhi.	Delhi	Acres. 19,168	Acres. 17,000	...	26	1	14	11,50	...	5,306	...
	Goorgoon	32,637	32,903	1	5	2	10	37,368	...	16,716	...
	Kurnal	19,328	17,939	1	11	2	22	22,957	...	8,797	...
	Total	70,973	67,892	1	1	2	2	71,815	...	30,707	...
Hisar.	Hisar	5,929	3,736	1	38	3	36	7,272	...	...	...
	Rohituck	40,268	35,539	1	10	2	28	48,174	...	10,000	...
	Sirsa	297	211	...	30	2	5	153	...	...	...
	Total	45,894	42,486	1	12	2	36	55,604	...	10,000	...
Cis-Bulhel.	Umballa	36,518	33,159	1	20	4	20	49,738	20	20,000	...
	Loodhiana	17,973	23,598	1	37	4	5	45,422	...	...	...
	Simlah	Not known	500	...	20	2	...	250	...	...	...
	Total	53,891	57,257	1	12	3	22	95,410	20	20,000	...

INX

Trans-Sutlej.	Jullundhur... ..	17,670	16,907	1	7	3	5	19,660	...	...	...
	Hoshearpore ... ..	20,816	20,000	...	35	2	27	18,025	...	...	...
	Kangra ... ..	7,359	9,241	...	19	1	23	4,476	...	...	...
	Total ...	45,845	46,748	...	34	2	18	42,161	...	...	...
Uninsaur.	Uninsaur ... ..	21,015	21,627	1	20	4	17	32,290	20	...	...
	Syalpote ... ..	23,429	23,888	1	2	2	37	30,332	8	3,810	...
	Goortaspore ... ..	16,583	18,994	1	6	3	17	21,928	...	3,517	...
	Total ...	61,027	69,409	1	9	3	24	84,550	28	7,336	...
Lahore.	Lahore ... ..	17,140	13,430	1	9	3	26	16,428	...	5,000	...
	Ferozapore ... ..	4,735	8,908	1	20	4	20	19,000	...	...	...
	Goojranwala ... ..	15,127	19,233	...	38	2	35	18,107	...	5,494	...
	Total ...	37,002	40,721	1	9	3	27	46,535	...	10,494	...
Raval Pindee.	Raval Pindee ... ..	6,261	15,535	...	36	2	27	13,963	24	1,600	...
	Pholun ... ..	11,160	51,970	...	20	1	21	15,976	...	...	...
	Goojrat ... ..	21,466	27,976	...	20	2	11	21,136	...	846	...
	Shalupore ... ..	15,112	18,062	1	20	4	20	27,693	...	9,231	...
	Total ...	53,929	92,640	...	36	2	30	77,888	24	11,677	...
Mooltan.	Mooltan ... ..	19,172	20,701	1	11	3	33	26,325	...	11,325	...
	Jhang ... ..	14,511	14,011	1	20	4	20	21,016	...	2,500	...
	Goagaira ... ..	11,055	8,980	1	13	3	38	11,870	...	2,244	...
	Moozaffungurh ... ..	13,797	15,997	1	...	3	...	15,997	...	10,000	...
	Total ...	58,535	59,689	1	11	3	33	75,208	...	26,069	...

INX

Division.	District.	Area sown and or reduced to have been sown in 1861.	Area sown with Cotton up to July 1862.		Average Produce per Acre.						Probable Total Produce of Cotton Fibre only.		Probable amount available for exportation.	
			Acres.	Sqrs.	Cotton Fibre.			Seeds.			Mds.	Sqrs.	Mds.	Sqrs.
					Mds.	Sqrs.	Mds.	Sqrs.	Mds.	Sqrs.				
Dewah.	Dum Ennah Khan...	16,354	28,476	20	1	30	14,238	1	30	14,238	...	...	...	...
	Dum Ghazee Khan...	16,805	21,238	30	3	...	16,146	3	...	16,146	...	...	...	...
	Banah...	3,897	6,793	30	3	...	9,182	3	...	9,182	4	...	...	...
	Total...	36,056	55,802	29	2	24	35,568	4	...	35,568	4	9,000	...	...
Peshawar.	Peshawar...	7,299	9,416	1	2	4	9,918	13	...	9,918	13	...	...	...
	Kohat...	330	1,425	...	...	...	1,069	...	...	1,069	...	534	...	...
	Bahara...	11,000	13,800	...	21	2	7,240	...	...	7,240	...	...	...	...
	Total...	19,229	24,671	...	31	3	13,227	13	...	13,227	13	534	...	...
Grand Total...		4,81,351	5,47,414	1	4	3	5,02,466	8	...	5,02,466	8	1,25,817	...	...

(Signed) D. F. McLEOD,

Financial Commissioner of the Punjab.

FRANKL COMMISSIONER'S OFFICE, LAHORE,

The 26th August 1862.

## APPENDIX J. (2.)

### REPORT ON COTTON CULTIVATION IN THE CENTRAL PROVINCES.

From C. BERNARD, Esq., *Officiating Secretary to Chief Commissioner, Central Provinces*, to COLONEL H. M. DURAND, C. B., *Secretary to the Government of India, Foreign Department*,—(No. 307, dated Nagpore, the 19th January 1863.)

SIR,—I am desired by the Officiating Chief Commissioner to report as follows, for the information of His Excellency the Governor-General of India in Council, regarding the produce of cotton and the area under cotton cultivation in the Central Provinces during the season 1862, compared with the season 1861.

2. The subject may be treated of in three parts, corresponding with the three main topographical divisions of the country, *viz.*, the Wurda valley and lands south of the Sathpura Range of Hills, the Nerbudda valley, north of that range, and the Chutteesgurh Plateau and the Malanuddy and Godavery valleys. Their relative importance, in respect to their cotton producing capabilities, will be found to be in the order in which they are named.

3. First then in respect to the Wurda valley and lands south of the Sathpura Range. Under this heading, may be included the administrative sub-divisions of—

Nagpore.	} Nagpore Division.
Wurda.	
Chanda.	
Bhundara.	
Chindwarra.	} Jubbulpore Division.
Seonee.	
Baitool.	} Saugor Division.

4. The districts of Nagpore and Wurda, only recently divided into two separate charges, may be considered together, the statistics of each not being readily separable; they, moreover, jointly form what may be called the cotton field of the Central Provinces.

The extent and capabilities of this tract have already been so fully described in the Administration Report, submitted with this Office letter, No. 20, dated 5th August 1862, and in the report on the Godaverry navigation projects now in the press, and which will be submitted in a few days, that a recapitulation here may be unnecessary. The extent of land under cultivation during the season of 1861 in the valley of the Wurda is stated at 2,82,648 acres, whilst in 1862 it had increased to 3,53,310. The estimated yield of cleaned cotton is for 1861 19,845,394 lbs. and for 1862, 31,954,908 lbs: thus showing an increase of area brought under cotton cultivation equal to 25 per cent., and an increase of production equal to 60 per cent. But the year 1861 was not an average year; the latter rains almost entirely failed, affecting the growth and development of the plant. The increase might, therefore, be considered more relative than real. But if, as is very generally admitted, the average yield of cleaned cotton per acre is 68 lbs., then a small increased production has actually been obtained in 1862 over antecedent years. The local authorities are of opinion that the increased cultivation is due to the greater demand and higher prices existing in 1862, and to the larger area available for autumn sowings by reason of the inability of the cattle, weakened by the drought of 1861, to prepare the land for the Rubbee crops.

5. *Chanda*.—The valley of the Wurda penetrates into this district along the left bank of the Wurda river, gradually becoming narrower as it approaches the old city of Chanda. The extent of land under cotton cultivation along this tract, and to some small extent more in the interior of the district, is estimated at 18,000 acres in 1861, and 15,000 acres in 1862; and the yield at 1,180,800 lbs. of cotton in 1861, against £20,000 in 1862. This estimate is considered very low, but the season has been very unfavourable; and if anything untoward occurs to the cotton, the land is immediately taken up for other purposes.

6. *Blundara* is principally a rice growing country, lying to the east of the Wurda valley, from which it is separated by some hilly country. It is reported to produce no cotton.

7. *Chindvarra*, *Baitool*, and *Sconce* are districts rather in the Sathpura Hills than south of them. The climate or the soil, or both, are considered inimical to the cotton plant. The scanty

produce of cotton in these uplands will be found in accompanying table.

8. Taking the Wurda valley with the lands in and south of the Sathpura Range of Hills, as above described, the total area under cotton cultivation during 1861 may be stated at 3,15,064 acres against 3,86,768 in 1862; whilst the total yield during 1861 may be stated at 21,642,178 lbs. against 33,706,838 lbs. in 1862. Now if, as has been shown above, the greater demand and higher prices in 1862 have contributed towards increasing the cultivation of cotton, it might be reasonable to suppose that a larger proportion of the gross yield will be exported this season than heretofore, when the demand and prices were comparatively much lower. The proportion exported in past years is well known to be about one-third the gross produce. At that rate alone we should export this season some 5,000 tons of cotton; and, if the circumstances of the times be taken into consideration, it might not be very far wrong to say that half as much again will be exported this season, or, at the least, 6,000 tons of 2,240 lbs. A portion of this will probably avail itself of the railway to Bombay for the first time. Heretofore the cotton has gone by the Ahmednugur and Poona route. This year a part at least will go through Behar to the rail, which will have reached to Sheoagan near Akola in that province.

9. Prices have risen excessively of late. Last year they ranged at Rs. 70 per bhoja of 262 lbs. which showed a higher rate than any previously known. They have now risen to Rs. 120 per bhoja.

10. I am next to refer to the districts north of the Sathpura Range forming the valley of the *Narbadra*, they are—

Saugor.	} Saugor Division.
Dumoh.	
Hoshungabad.	
Jubbulpore.	} Jubbulpore Division.
Mandla.	
Nurshingpore.	

11. *Saugor*.—In this district the quantity of land under cotton cultivation is stated at 28,575 acres in 1861, and 31,519 acres in 1862, the yield being 1,236,724 lbs. and 1,238,856 lbs. for those

years respectively. This gives about 40 lbs. of cleaned cotton to the acre instead of about half as much again the average yield. The falling off is attributed to the storms of wind and rain which occurred late in October 1862, one talsed sub-division alone escaping the calamity. It will be seen that the high range of market prices has at Saugor, as at almost every other place, led to a larger extent of land being brought under cotton cultivation than heretofore.

12. *Dumch.*—In this district the quantity of land under cotton cultivation was 14,349 acres in 1861, and 15,225 acres in 1862, the yield being 829,738 lbs. and 832,300 lbs. in those years respectively. Here too the crop has not been in proportion to the increase of land taken up, the cause being unseasonable heavy rains.

13. *Hoshungabad.*—In this district the quantity of land under cotton cultivation was 15,000 acres in 1861, and 25,500 in 1862, the yield being 649,332 lbs. and 1,274,336 lbs. respectively for the two years. The great demand for cotton has here contributed to double the extent of land being taken under cultivation, happily with better results than in the two preceding districts. The estimated yield per acre (50 lbs.) is, if any thing, under the mark.

14. *Jubbulpoor.*—From the returns of this district it does not appear that any new land has been taken under cotton cultivation in 1862; there being 18,268 acres under cotton in that year against 18,239 acres in the year preceding. The produce, however, has been more successful, the yield in 1861 being 1,782,188 lbs. whilst in 1862 it was 2,107,392 lbs. The late rains, however, it is reported, caused some injury to the produce. In this district the yield per acre of cleaned cotton is stated as high as 115 lbs. which, though possible under a system of careful picking, is somewhat above the average.

15. *Mandla.*—The result of cotton cultivation in this district is insignificant, and will be found in the accompanying table.

16. *Narsingpore.*—The most important district, in respect to cotton produce, in the Nerbudda valley. The extent of land under the cultivation in 1861 was 42,510 acres and 45,000 in 1862, a slight increase, attributed to the demand and high prices offered, the yield being 2,613,750 lbs. and 3,228,750 lbs. in 1861 and 1862 respectively, or about 72 lbs. of cleaned cotton per acre, a fair average.

17. In the valley of the Nerbudda then it may be said that there was in 1861 1,16,904 acres of land under cotton cultivation, whilst in 1862 there was 1,35,672 acres, the stimulus to increased cultivation being the rise in prices. The gross produce being 7,132,524 lbs. in 1861, and 8,704,874 in 1862, or about 65 lbs. per acre, a very safe average except Hoshungabad in the west, which exports its cotton to Bombay; there are no statistics, however, to give the quantity of cotton exported as compared with the quantity reserved for home consumption. But the Commissioner is of opinion that probably one-half may be exported, and that the dealers have made arrangements for its carriage. Thus about 1,943 or say 2,000 tons of cotton may be expected to reach the sea board as the export quota of the Nerbudda valley.

18. The third and last geographical division to be considered, is the plateau of Chutteesgurh and the valleys of the Mahanuddy and the Godavery, comprising the administrative sub-divisions of—

Raepore.	} Chutteesgurh Division.
Belaspore.	
Sambulpore.	
Upper Godavery	} Under the Agent, Governor General.

19. The first two sub-divisions have only recently been separated into independent charges, and will consequently be considered together. In the last Administration Report it was stated that the district officer, in December 1861, had estimated the cotton produce of Raepore, including Belaspore, at 36,750,000 lbs. per annum, and that this estimate was held to be exaggerated. More recent enquiries have tended to prove it so to a considerable extent, for the present Deputy Commissioner, from the best information locally available, estimates the gross yield at only 3,280,000 lbs. for 1861 as for the year following. The quantity of land under the crop is also roughly calculated at 40,000 acres, yielding at an average a maund, or 82 lbs., per acre. In the absence of field measurement of any kind, and considering that the produce is raised mainly in the states belonging to petty chiefs, known as the "zemindaries," it must be difficult to arrive at any very exact statistical results; but the Officiating Chief Commissioner believes that the present estimate is much too low, judging from the quantity

of cotton exported from Raepore in past years. The season of 1862 has certainly been very unfavourable in Raepore, the rains continuing much longer than usual to the injury of the cotton crop. The high range of prices has, it is reported, induced the dealers to reserve in store a large quantity of the produce of 1861, all of which, with a large proportion of the current year's out-turn, may be expected to be carried to the ports for exportation this season, the route being by the Mahanuddy to Cuttack on the eastern coast.

20. Sambulpore, situate further east in the valley of the Mahanuddy, has also suffered from the heavy and late rains of 1862. The produce of the northern portion of the district is carried on pack bullocks to Cuttack, whilst the produce of the southern portion is taken to Binka on the Mahanuddy in the dependency on Son-poor, and thence sent down the river to Cuttack. The area under cotton cultivation in this district and in the dependencies under its control is roughly estimated at 24,000 acres, the yield in 1861 being 2,400,000 lbs., and in 1862, owing to bad season, 1,640,000 lbs.

21. The Upper Godavery District is not a cotton producing country at present, and in this report needs no further remark.

22. From the above description, then, of the cotton produce in the Chutteesgurrh plateau and Mahanuddy and Godavery valleys it may be estimated that about 64,000 acres of land are under the crop, and that the yield, during the season of 1862, amounted to about 5,000,000 lbs. Of this about half would be exported, and with the reserve stock of the preceding year, the total quantity that may be expected to reach the sea board at Cuttack, would not be under 3½ millions of pounds or about 1,600 tons.

23. The accompanying table will afford a summary of the statistics already detailed, it will show —

I.—That, notwithstanding the season having been partly unfavourable, the area under cotton has increased from 4,96,171 acres in 1861 to 5,86,650 acres in 1862, and the production from 34,523,553 lbs. in 1861 to 47,344,914 lbs. in 1862, showing an increase of 18 per cent. in area and of 37 per cent. in produce, which increase is attributable in part, but not entirely, to the enhanced rate of prices.

II.—That the total area under cotton cultivation in the Central Provinces is about 5,86,650 acres, of which 3,53,210 is in the valley of the Wurda alone.

III.—That the gross yield of cleaned cotton is estimated at, (47,344,914 lbs.) say, forty-seven and a half millions of pounds (or 21,000 tons).

IV.—That the average produce per acre of cleaned cotton is little under a maund, or 82 lbs., the highest being 115 lbs.

V.—That the total exports for the Central Provinces, inclusive of the balance of stock of the previous year reserved by speculators in the hope of prices rising, may be calculated to amount to from 20 to 22 millions of lbs. (9,000 tons), and that this large exportation may be expected to reach the sea board before the close of the season, about 6,000 tons for Bombay, 2,000 tons for Mirzapore and Calcutta, and 1,600 tons for Cuttack on the eastern coast.

24. The Officiating Chief Commissioner believes that these results are not exaggerated; they have been arrived at after local enquiry; though estimated, they are as approximate to the truth as the nature of the question admitted of examination. It is to be regretted that the area under cotton cultivation could not, for all the districts, be given from actual field measurement; but, in the valley of the Wurda, the cotton field of the Central Provinces the area given by the tehseldars and village putwarees is for the most part corroborated by the Settlement Officer, and may, therefore, be accepted as correct. In the valley of the Nerbudda too, the estimate has been arrived at by tehsel officials well acquainted with the local cultivation and exact field measurement. In the plateau of Chutteesgurrh and the valleys of the Mahanuddy and Godavery alone, is the estimate unsupported by any very reliable data; but here it is generally believed the estimate is much within the limit. Before the close of the present working season the Officiating Chief Commissioner hopes to be able to lay before Government more certain statistics of the cultivated area under cotton in the Central Provinces, based on actual measurement, field by field; meanwhile the present estimate may be accepted as approximate and as near the truth as present means admit of.

25. In conclusion, I am to inform you that an application has been received from the Bengal Chamber of Commerce for information on the points treated on in this report, and should His Lordship in Council see no objection Mr. Temple would be glad if the request were complied with. He would also submit that the information might also prove interesting to the Bombay Chamber.

Statement showing the approximate area under Cotton Cultivation with the estimated produce during the season of 1862 compared with 1861.

	DISTRICTS.	APPROXIMATE AREA UNDER COTTON CULTIVATION IN ACRES.		ESTIMATED PRODUCE IN LBS.		REMARKS.
		Season of 1861.	Season of 1862.	Season of 1861.	Season of 1862.	
Nerbudda Valley, south of Satpura Range.	Saugor ...	28,575	31,519	1,236,724	1,238,856	
	Dumoh ...	14,349	15,225	820,738	852,300	
	Hoshungabad...	13,000	25,500	649,532	1,274,936	
	Jubbulpore ...	18,339	18,268	1,782,188	2,107,892	
	Mundla ...	191	160	29,192	22,140	
	Nursingpore...	42,610	45,000	2,613,750	3,228,750	50 lbs. to the acre.
	Total...	1,16,994	1,35,672	7,132,524	8,704,874	
Nagpore Province, south of Satpura Range.	Chindwarra ...	10,840	14,910	279,784	598,600	
	Baitool ...	70	48	5,200	5,350	
	Seonee ...	3,500	3,500	328,000	328,000	
	Nagpore ...	2,82,648	3,53,310	19,845,394	31,954,908	
	Wardha ...	.....	.....	.....	.....	
	Bhundara ...	.....	.....	.....	.....	
	Chanda ...	18,000	15,000	1,180,800	820,000	
	Total...	3,15,094	3,86,768	21,642,178	33,706,838	
Chutia, Gurha, Hazari & Mahanuddy & Godavery Valleys.	Raepore ...	40,000	40,000	3,280,000	3,280,000	
	Belaspore ...	24,000	24,000	2,460,000	1,640,000	
	Upper Godavery ...	143	210	8,856	13,202	
	Total...	64,143	64,210	5,748,856	4,933,202	
	Grand Total	4,96,171	5,86,650	34,523,558	47,344,914	

CHIEF COMM.'s OFFICE,  
C. P., NAGPORE,  
The 10th January 1863.

(Sd.) C. BERNARD,

Offy. Secretary.

No. 83.

Copy forwarded to the Secretary to the Chamber of Commerce at Calcutta.

No. 84.

Copy forwarded to the Secretary to the Chamber of Commerce at Bombay.

No. 85.

Copy forwarded to the Home Department for publication in the Supplement of the Calcutta Gazette.

By order, &c.,

J. T. WHEELER,

Asst. Secy. to the Govt. of India.

FORT WILLIAM,  
FOREIGN DEPARTMENT,  
REVENUE,  
The 10th February 1863.

APPENDIX J. (3).

COTTON CULTIVATION IN BURMAH.

COPY.

GOVT. No. 269 of 1862.

FROM

LIEUT.-COLONEL A. P. PHAYRE,

*Chief Commissioner of British Burmah,*

*and Agent to the Governor-General,*

TO

COLONEL H. M. DURAND, C. B.,

*Secretary to the Government of India,*

*Foreign Department, Fort William.*

*Dated Rangoon, the 30th Dec. 1862.*

No. 3286.  
Foreign.  
General.

SIR,—With reference to your docket No. 797 dated the 26th of August last on the subject of the production of cotton in the territories of the king of Burmah, which subject was brought to notice in letter from the Secretary to the Bengal Chamber of Commerce to your address dated the 11th of August last, I have the honor to report as follows.

2. On my late mission to Mandalay I took an early opportunity of enquiring into the state of the cotton market in the Burmese territory. I found that the produce this season, that is, the cotton which will come into the market about February or March 1863, is expected to be not less than two millions of viss, equal to about eighty-thousand (80,000) bazar maunds. It is much to be regretted that the monopoly of cotton has this year been granted away by the Burmese Government, so that the cultivators can only sell to the holder of the monopoly at a fixed rate. It is true that some

lix

of the cultivators have been enabled to extend their cultivation during 1862, by reason of advances made to them from the Burmese Government. But the effect of the monopoly it is to be feared will be to render the people unwilling to extend their cultivation next year. I shall however take an opportunity of advising the Burmese authorities not again to grant away a monopoly of cotton, but to leave the cultivators to sell as they please. Should that be done, there is good reason for believing that the produce of cotton in the Burmese territory might be doubled in the year ending April 1864.

3. It is undoubtedly difficult to make the Burmese understand the benefit which would result to their country from giving free scope to the industry of the people. But I have lost no opportunity of bringing this subject forward, especially as regards cotton, and I shall not lose sight of the question now that I am about again to proceed to Mandalay.

I have, &c.,

(Sd.) A. P. PHAYRE,

*Chief Commissioner of British Burmah,*

*and Agent to the Governor-General.*

RANGOON,

*The 30th December 1862.*

No. 51.

Copy forwarded to the Secretary to the Bengal Chamber of Commerce in continuation of this Office letter dated 26th August last, No. 796.

By order, &c.,

C. U. AITCHISON,

*Under-Secy. to the Govt. of India.*

FOREIGN DEPARTMENT,

POLITICAL,

*The 15th January 1863.*



## APPENDIX K.

### EARLY CLOSING ON SATURDAYS.

CUSTOM HOUSE,

14th January 1863.

MY DEAR BULLEN,—I have again been asked by the subordinates of the Custom House to grant the boon of early closing on Saturdays. As the opinion of the Chamber of Commerce was against the grant of this indulgence, it would be useless in me to agitate the question again, until I can ascertain whether the feeling of the Chamber is against the early closing here *in toto*, or merely against it as a bar to the clearance of ships on Saturdays. If this latter objection be the sole bar to the introduction in the Chamber's opinion of the early closing, I can only say that it is an objection which I am sure I could remove by making arrangements in the Custom House to admit of any vessel being cleared, which the owners or consignees may be anxious to have port clearance for on that day. The present rule of the Custom House, (see page 43 of the C. H. Guide) prescribes that *three days'* notice of intention to clear must be given. The new law provides for twenty-four hours' notice of the same. With the latter notice given I can easily arrange, with the Deputy Collector and myself in conjunction with the Export Department and the Preventive Office, to have all necessary hands present every Saturday to 5 p. m. to clear ships.

Almost every office I know of now closes at 2 p. m. on Saturdays, and I think it is somewhat hard on the Custom House subordinates that they alone should be prevented from enjoying this boon.

I should be much obliged if you could as President of the Chamber assist in obtaining the sanction of the members to this change: many of my subordinates are members of the Volunteer Corps, and I cannot grant them as a right leave to quit office early on that day which I am unable to grant to others.

ixi

I am anxious to meet the wishes of the mercantile body, and desirous of acting in all such matters in co-operation with them; hence this reference to you as their present head. I trust that with the power to clear vessels on Saturday provided for, the Chamber will re-consider their opinion on this matter.

I am,

My dear Bullen,

Yours truly,

J. A. CRAWFORD,

*Offy. Collector of Customs.*

JOHN N. BULLEN, Esq.

BENGAL CHAMBER OF COMMERCE,

*Calcutta, 19th January 1863.*

J. A. CRAWFORD, Esq.,

*Offy. Collector of Customs.*

SIR,—Your letter of the 14th instant to the President of the Chamber of Commerce has been submitted to the Committee, by whom I am directed to state that their objection to early closing on Saturdays as communicated in my letter of the 6th August has been removed by your assurance that arrangements will be made to admit of any vessel being cleared on a Saturday which may apply for her port clearance on that day; and that they now cordially consent to the boon of early closing on Saturdays as solicited by your establishment.

I have the honor to be,

Sir,

Your most obedient servant,

H. W. I. WOOD,

*Secretary.*

FROM

J. A. CRAWFORD, Esq.,

*Offg. Collector of Customs, Calcutta,*

TO

THE SECRETARY TO THE CHAMBER OF

COMMERCE, CALCUTTA.

*Dated 27th January 1863.*

SIR,—I have the honor to acknowledge the receipt of your letter dated 19th instant, and to convey to the Chamber the thanks of the subordinate officers of the Custom House for the ready acquiescence in the early closing of the Custom House on Saturdays.

2. I beg to state for the information of the Chamber that I have arranged that portions of the officers of Export, Import, and Preventive Service Departments shall be in attendance every Saturday, together with the Deputy Collector and myself in turn, up to 5 P. M., in order to grant outward clearances for vessels.

3. I trust I may be allowed to express a hope that firms intending to clear vessels on Saturdays will give notice in the morning, in order that no unnecessary delay may occur in getting ready the papers of vessels desirous of clearance.

I have the honor to be,

Sir,

Your most obedient servant,

J. A. CRAWFORD,

*Offg. Collector of Customs.*

FROM

J. P. GRANT, Esq.,

*Offg. Junr. Secy. to the Board of Revenue,*

TO

THE SECRETARY, CALCUTTA CHAMBER OF COMMERCE.

*Fort William, the 30th March 1863.*

*Stamps.*

W. J. Allen, Esq.

SIR,—The Superintendent and the Collector of Stamps having both recommended to the Board that the benefit of the Saturday half-holiday, now extensively conceded both in public and private offices in Calcutta, may be extended to their offices, I am desired by the Board of Revenue to enquire whether the Chamber of Commerce have any objections to urge against the adoption of the above practice in connexion with the Stamp Offices.

2nd. It is proposed to close the offices at 2 P. M. on Saturdays, except on occasions on which the English mail may close on a Saturday, in which case the usual office hours will be kept.

I have the honor to be,

Sir,

Your most obedient servant,

J. P. GRANT,

*Offg. Junior Secretary.*

BENGAL CHAMBER OF COMMERCE,

*Calcutta, 17th April 1863.*

J. P. GRANT, Esq.,

*Offg. Junr. Secy. to the Board of Revenue.*

SIR,—I am desired by the Committee of the Chamber of Commerce to state, in reply to your letter No. 364 of the 30th ultimo, that they will be happy to consent to the early closing on Saturdays of the Offices of Superintendent and Collector of Stamps, as

applied for by those establishments, provided arrangements are made for despatch of business on English and China mail days if those mails close on a Saturday.

In making this qualified concession the Committee beg me to represent that it would very materially conduce to public convenience if public offices generally were kept open to 5 p. m. Scarcely any house of business is closed before that hour, and there is no reason why Government offices should not observe the same hours.

I have the honor to be, &c.,

H. W. I. WOOD,

*Secretary.*

## APPENDIX L.

### ADDRESS TO THE HON'BLE SIR CHARLES TREVELYAN, K. C. B.

BENGAL CHAMBER OF COMMERCE,  
Calcutta, 24th January 1863.

TO THE HON'BLE SIR C. E. TREVELYAN, K. C. B.,

*Member of the Council of the Governor-General of India.*

HONORABLE SIR.—The Bengal Chamber of Commerce desire, on your arrival in Calcutta, to offer you their congratulations on your appointment as a Member of the Council of the Governor-General.

2. Advocating as they have invariably done the policy of entrusting the Department of Finance to a statesman whose administrative experience has been acquired in the conduct of public business in England, the Chamber of Commerce regard with satisfaction this further recognition of that policy, and an appointment by which, on the regretted resignation of Mr. Laing, the high responsibilities of that office are committed to one so eminently qualified as yourself to exercise them for the public good.

3. Though, happily, the finances of the empire are now restored to a sound and prosperous condition, and the necessity for devising new taxation no longer exists, much remains to be done in perfecting the reforms inaugurated by your two immediate predecessors, which requires the controlling supervision of an experienced financier.

4. Should the progressive improvement which, it is believed, is taking place in the financial position of the State enable you to recommend to His Excellency the Governor-General in Council any reductions in the taxation imposed during the last few years, the Chamber of Commerce feel confidence that you will impartially

weigh the claims of all classes, and administer relief where it may appear to be most needed.

5. All measures having for their object the development of the commerce of the country and the legitimate encouragement of enterprise in promoting its agricultural industry will the Chamber feel sure have your warm advocacy.

6. The Chamber are equally sure that all well considered schemes for public works, whether to be undertaken by the State or by private capitalists, will have your hearty support.

7. In conclusion the Chamber desire to repeat the assurance conveyed in similar addresses to your two predecessors of the gratification it will at all times afford them to communicate with you personally whenever it may seem desirable to you to avail yourself in that way of the practical experience of any of their number.

We have the honour to be,

Sir,

Your most obedient faithful servants,

*For the Bengal Chamber of Commerce,*

JOHN N. BULLEN,

*President.*

WILLIAM MAITLAND,

*Vice-President.*

In reply, Sir Charles Trevelyan said—

GENTLEMEN.—I accept with pleasure the congratulations you have so kindly offered me on my appointment to the Council of the Governor-General.

The assurance you give me that you regard my appointment with satisfaction, and that you will be at all times ready to give me the advantage of the practical experience of any of your number, is gratifying and encouraging to me. The interests of the government are identical with those of commerce, and this truth will, I hope, be exemplified in our cordial co-operation.

You justly remark that the main work of the restoration of the finances of India has been already accomplished by my two immediate predecessors; the organic changes have been made, and what remains for me is the humble but useful task of perfecting these great improvements, and of carrying the well tried principles of English finance through every department of income and expenditure. If this good work receives the support I expect it will, Anglo-Indian finance will soon settle down into a well-regulated system, requiring only ordinary care to maintain it in an efficient state, and Anglo-Indian credit will be placed in the high position to which it is entitled by the substantial foundation on which it rests.

But, gentlemen, the limits of what can be accomplished by the best financial arrangements are much narrower than is generally supposed. The fund at our disposal for works of improvement is only what can be spared out of the produce of the taxes after providing for the primary objects of government. The agency at our disposal is confined to what can be directed and superintended by a single head. The hands of the Anglo-Indian Government have not been "torpid," but they have been overburdened; and the popular aspiration by which every desired object is sought to be obtained by an indefinite development of the Department of Public Works is a pure delusion.

You have, therefore, properly adverted to the great importance of calling the principle of private enterprise to the aid of the principle of government administration. The inexhaustible capital and the multifarious agency of England are elements of enormous power; and when India shall have been once fully accepted as a field for English investment and English activity, she will enter upon a new career, the future of which I do not venture to predict. Lord Elgin's government adopted from the first this policy, and measures have been already commenced in this sense which it will be my duty to explain at the proper time.

Let us pray that God may give us all the blessing of united counsels, and that future generations may have no reason to be ashamed of any of the men who guided the destinies of India through the great crisis of her affairs.

## APPENDIX M.

### PROPOSED SCHEME FOR THE BENEFIT OF MERCHANT SEAMEN OF GREAT BRITAIN.

BENGAL CHAMBER OF COMMERCE,

*Calcutta, 21st March 1863.*

TO THE RIGHT HON'BLE THE LORD MAYOR,

LONDON.

MY LORD,—The attention of the community of this city has been directed to the condition of the merchant seamen of Great Britain, and to the necessity which exists for improving it, by two lectures which have been delivered in the Town Hall by Capt. Henry Toynbee of the E. I. ship *Holspur*, copies of which I have the pleasure to forward herewith. These lectures were very numerously attended, not only by the commanders and officers of ships and the public generally, but also by seamen, who appeared to be much interested in the movement, and who loudly applauded the propositions placed before them.

These propositions are as follows:—

1st. The providing of homes for the wives and children of married seamen.

2nd. The establishment of a Benefit Fund for pensioning aged and decayed seamen.

To assist him in giving practical effect to these propositions, Capt. Toynbee has appealed to the commercial community of Calcutta through this Chamber: the community here will gladly aid Capt. Toynbee in his humane efforts to ameliorate the condition of this hard-working but too often improvident class of men, so far as lies in their power. As a preliminary measure they take the

lxix

liberty of bringing the subject under your Lordship's notice, hoping that by your Lordship's influence the subject may be so introduced to the English public as to command the success which it truly merits; and that it may lead to steps being taken to give effect at an early date to the propositions so strongly recommended by Captain Toynbee.

The Committee will not dwell upon the misery, and the demoralising consequences resulting from the want of respectable dwellings for the wives and families of absent seamen. The British public, aided by that estimable lady Miss Burdett Coutts, are already providing dwellings for the wives of policemen and those who by the nature of occupation are called from their homes; but the Committee venture to remark not only will the families of seamen benefit, but great advance towards the moral improvement of the sailor will be gained by assuring to him, when absent, the comfort of his family. Further, the Committee believe that the demoralising scenes so often witnessed in foreign ports would greatly diminish.

It will be seen by Capt. Toynbee's proposals that it is intended that these homes for seamen should be in England; and it is thought that, beyond the amount required to start them, these homes would be very nearly self-supporting by the subscriptions required from sailors who wish to benefit by them.

With the second proposal—the establishment of a Benefit-Fund for pensioning aged and decayed seamen—Capt. Toynbee has drawn the attention of the Committee to the fact that there is an amount of about £20,000 in the hands of the Trinity House, being the unclaimed wages of defunct seamen, and which would serve well as the nucleus of a pension fund. To any such benefit fund many sailors would subscribe through the owners or commanders of ships, and the Committee think that an appeal should be made to sanction the contributions of all unclaimed wages in future to such a fund.

In conclusion, while asking your Lordship to take an early opportunity of making this communication public, and thanking you for your advocacy which the Committee feel they thus bespeak, I am directed to mention that this Chamber has addressed the various Chambers of Commerce in Bombay, Madras, Ceylon, China, Australia, &c., requesting their hearty co-operation for

the benefit of British sailors; and it will be highly gratifying to learn that the city of London is willing to take the initiative in a movement which promises so much good.

I have the honor to be,

My Lord,

Your Lordship's most obedient humble servant,

H. W. I. WOOD,

Secretary.

## APPENDIX N.

### WET DOCKS.

To

THE PRESIDENT AND COMMITTEE OF THE  
BENGAL CHAMBER OF COMMERCE.

*Calcutta, 27th December 1862.*

GENTLEMEN,—At an interview I lately had the pleasure to hold with your Secretary, that gentleman informed me that any sound scheme for the formation of Wet Docks to the port of Calcutta would be favorably received by your Chamber.

Annexed I beg to forward you a paper, setting forth how and where it appears the required docks can best be formed; the source from which they can best be supplied with water that will be free from deposit, and in such quantities as will insure the docks not becoming foul, which is a matter of the greatest importance in a climate like this.

It will be seen that the means by which it is proposed to supply the docks with water will also give an independent and safe access to and from the sea to ships frequenting this port, and thus do away with the great and apparently increasing danger, and part of the great cost, of reaching it by the Hooghly.

It will also be seen that it forms part of the project to bring the various railways that have their termini in Calcutta in immediate connexion with the proposed docks, the Government Commissariat Stores, Government Dock Yard, Custom House, and Bonded Warehouse.

Your Chamber must be well aware of the great advantages to be obtained from accomplishing these various objects; but in addition it will be seen that after setting apart sufficient revenue to give a return of 12 per cent. on the proposed outlay, a direct saving to the shipping of the port will be effected of upwards of £320,000 per annum, which is a further and most substantial reason why this project should claim the support of the Government and the public.

Annexed to this is a copy of the opinions of Mr. Turnbull, Chief Engineer of the East Indian Railway, Mr. Purdon, Chief Engineer of the Eastern Bengal Railway, and Mr. Power, Officiating Chief Engineer, East Indian Railway, which, I have no doubt, will have great weight with you and the Government. I also annex a letter from Mr. Henfrey, a member of the firm of Messrs. Brassey, Wythes and Co., the eminent contractors, who endorses the opinion given by Mr. Turnbull and others, and which, I trust, will fully satisfy you of the practicability of carrying out the proposed works, and at the estimated cost.

I have the honor to be,  
Gentlemen,  
Your most obedient servant,  
FRANKLIN PRESTAGE.

*Calcutta, 4th December 1862.*

At a meeting of the undersigned engineers held this day for the purpose of discussing Mr. Prestage's design for docks for the port of Calcutta, they were of opinion that the project was deserving of thorough investigation, and if the principles laid down were found to be borne out in detail, the project merited the favorable consideration of Government and the support of the public.

(Signed) GEO. TURNBULL,  
" W. PURDON,  
" G. POWER.

CONTRACTOR'S OFFICE, EASTERN BENGAL RAILWAY,  
MIDDLETON ROW, PARK STREET,  
*Calcutta, 12th December 1862.*

FRANKLIN PRESTAGE, Esq.

DEAR SIR,—I have examined your estimates for the proposed ship canal from the Mutlah, with wet docks at the Calcutta terminus, and should, on behalf of our firm, be prepared to undertake the execution of these works on the basis of such estimates.

On the necessity for some great improvement in the port of Calcutta for the convenience of shipping it is needless for me to dwell; it is sufficient to say that it is almost the only large port in the world in which nothing has been done to facilitate the operations of loading and discharging vessels.

The great drawback to all previous projects for wet docks at Calcutta has been the apparent necessity for supplying them with water from the river Hooghly, which is generally so highly charged with earthy matter, that the annual cost of maintaining the docks at a sufficient depth for large ships, would be very great, whilst there would be great danger of the lock entrances being silted up every rainy season.

These difficulties would be, to a great extent, overcome by your project for supplying the water for the docks from the river Mutlah.

At the same time the formation of a ship canal would afford a means of approach to Calcutta, which would be attended with much less risk to vessels than is at present found through the narrow shifting and shallow channels of the river Hooghly.

The facilities for discharging cargoes afforded by the system of wet docks could not fail to be of very great advantage to the mercantile community of Calcutta, from whom, I have no doubt, you will find the warmest support to your project.

I am,  
Yours faithfully,  
(Signed) CHARLES HENFREY,  
*Of the Firm of Brassey, Wythes and Co.*

A PAPER SETTING FORTH HOW WET DOCKS CAN BE PROVIDED FOR THE PORT OF CALCUTTA, BY MAKING A SHIP CANAL FROM THE MUTLAH.

1. The necessity of providing wet docks for the port of Calcutta has often been brought before the notice of Government and the public. In 1844 we find a Committee was appointed by Government to inquire into the practicability of providing wet docks capable of containing a part or the whole of the shipping frequenting the port. The Committee terminated its labors by

recommending docks should be made at Kiddlerpore, and the result of the Committee's enquiry is given in full annexed to the end of this paper; also the Government reply to it, which, it will be seen, was most encouraging. However, up to the present time no attempt appears to have been made to give effect to the Committee's recommendation.

2. In December 1861 the principal masters of ships in the port addressed a letter to the Chamber of Commerce, complaining of the want of wet docks, and other requirements, a copy of which is also annexed, and which clearly shows their necessity.

3. Since that time several schemes have been brought forward to construct quay walls along the banks of the river, and run screw pile jetties into the stream, to facilitate the discharging and shipping of cargoes; each of these schemes having their particular merits, but not meeting the requirements of the port.

4. The advantages of wet docks to a port have so long since been an established fact, that it will be useless to attempt to set forth their advantages here, so we will at once proceed to describe how and where it is proposed to construct and work the proposed docks.

5. After due consideration it has been thought most desirable to fix their site at Garden Reach, near to the site recommended by the Committee of 1844; and on reference to the annexed block plan it will be seen that it is proposed to construct the export dock on the comparatively open place between the Garden Reach Road and Moocheekola Road, and the import dock between the Moocheekola Road and the Diamond Harbour Road. At the west end of the export dock it is proposed to form a steam basin, so that the Peninsular and Oriental steamers may lay alongside the quay adjacent to the Company's present premises, in the south-west corner of the basin; and in the north-west corner there will be sufficient space for the Government steamers, also adjacent to the Government Dock Yard; or, should the Government require it, a dock might easily be constructed abreast of their Dock Yard, leading out of the entrance basin as shown on the plan. It is proposed to put the lock leading from the dock into the Hooghly on the ground lying between the Peninsular and Oriental yard and India General Steam yard; the site is particularly well suited for the purpose and there is ample space.

6. Parallel to the south side of the export dock, it is proposed to construct a shallow dock for inland steamers and country boats that they may bring their export cargoes alongside the quays, to which the sea-going ship would be berthed, so that the cost and risk of transhipping would be reduced to a minimum; at the same time the country boats would be kept clear of the shipping, which would be very desirable.

7. All the present important roads crossed by the docks or canal could be provided with swing bridges, so that very little inconvenience will be caused to the present traffic on them.

8. The advantages of the proposed site are many.

1st. Large space can be got without much destruction to property, or interfering with vested interests.

2nd. The site is near Calcutta, with several good roads and approaches to it leading almost in every direction.

3rd. It is south of Calcutta, and in a healthy neighbourhood.

4th. Few engineering difficulties present themselves either in the construction of the docks, or the canal by which it is proposed to feed them.

5th. The site is favourable for bringing the various railways to.

9. With regard to the means by which it is proposed to feed the docks, the Hooghly water contains such a large amount of deposit, and, it is thought, would so soon become foul when in a stagnant state, that it has been thought most expedient to obtain a supply from some other source, and after due consideration it is proposed to construct a ship canal from the Mutlah to the east of the docks; this will have the triple advantage of giving a large supply of water comparatively free from deposit; it will get over the dangers of the Hooghly by giving all shipping frequenting the port easy and safe access to the sea, independently of that river, and the Mutlah Railway will carry us twenty-eight miles down towards the sea, which will be a great desideratum for all goods, mails, and passengers requiring quick transit.

10. In order to free the Mutlah water of the small quantity of deposit in it, it is proposed to convert the Angatchia Khall

\* Careful test proves the Mutlah water to contain 1 in 5,574 deposit. The Hooghly at some seasons contains 1 in 200.



leading out of the Mutlah into a settling basin, which will give great area at very trifling cost, and to keep the level of the water in it, the canal and docks as near as possible at the level of the flood in the Mutlah, and to pass out sufficient water by the Hooghly Lock into the Hooghly at each ebb to keep the docks from fouling. Levels that have been carefully taken prove that the difference in the level of the Mutlah and the Hooghly, at the points we propose to deal with them, is very favorable for this purpose.

11. We are well aware the idea of a canal from the Mutlah to the Hooghly is not a new one, and although, when proposed, it was not thought proper to carry it out, owing we believe, to its only being designed as a means of connecting the two rivers, and the supposed engineering difficulties being at the same time very much magnified. We now hope it will be thought that we can show the engineering difficulties are not such as to cause the least fear of an unsuccessful result; also that a canal is much more required now, owing to the serious state of the Hooghly.

12. Until lately there seems to have been great difference of opinion as to whether the Hooghly is deteriorating as a navigable channel, but the frequent loss of ships during the last few months painfully proves the fact; indeed, there now seems to be so little difference of opinion about it, that Government have turned their attention to artificially deepening the various shoals in the river, although with doubts of the ultimate success of such operations, except at great and continued cost.

13. The advantages of the Mutlah, as a navigable channel, when compared with the Hooghly, have been fully set forth by Mr. Longridge, in his report, dated 21st May 1857, on the Calcutta and South Eastern Railway, an extract from which is annexed to this. That gentleman has clearly shown there is a good navigable channel from the sea to the terminus of the Calcutta and South Eastern Railway on the Mutlah; the question now to be decided is how to take advantage of this channel? The promoters of the Mutlah new port and the Calcutta and South Eastern Railway hope to take Calcutta down to it; we propose to artificially bring the channel up to Calcutta, it being a much easier and far less costly thing to do besides, instead of compelling ships to lay in an open river with a tide rising and falling some 15 feet, where even fresh water cannot be got, and which has been proved to be fearfully unhealthy

both to Europeans and Natives, they can be brought up to Calcutta, got all the advantages of an old established port, and readily obtain fresh provisions and other necessities which only old established and large bazars or markets can afford.

14. We propose to do very much the same thing as the Gloucester people had spirit and enterprise enough to do in 1694. They, at the cost of £313,600 made a ship canal seventeen miles in length from Berkeley Pill to Gloucester, to cut off the windings of the Severn and overcome its bore; the canal has proved a great success, and has considerably improved the port, so there is a good precedent for what we propose.

15. Some of those that are interested in the Mutlah port or railway may think this project opposed to their interests, but we are confident they have no good reasons for doing so; if the proposed canal is made, ships would undoubtedly seek the Mutlah, and the consequence would be that a vast amount of traffic would be brought upon the railway. From what we have heard and observed, there does not seem the slightest chance of ships frequenting that river if they have to lay in it, in which case there will be little or no traffic on the railway.

16. We believe the promoters of the Mutlah Railway have projected a line from their present main line to Diamond Harbour, with a view to draw some of the traffic from the Hooghly. If we can turn the shipping from the Hooghly up and down the proposed canal, and by the Mutlah terminus the railway company would get the additional traffic they might expect at Diamond Harbour on their present line, and thus be saved the cost of constructing and working twenty-six miles of additional railway. If this view of the case is a correct one, this project is clearly entitled to the support of the railway company instead of its opposition. It should also be fully borne in mind that by establishing a new port and docks at Diamond Harbour, and carrying a railway to them, we do not meet the requirements of the existing port of Calcutta; the shoals in the Rungafulla, Mud-point, Bedford and Gaspar Channels must be removed to even make the Hooghly below that place equal to the Mutlah as a navigable channel, and the cost of constructing the twenty-six miles of railway, establishing the new port, added to the great cost of transporting Calcutta down there, would far outweigh the cost of the proposed ship canal. There are the same objections

to moving the port of Calcutta to Diamond Harbour that exist to moving it to the Muttah, and we think it must be patent to all that it is far better to leave Calcutta where it is, and artificially bring a good navigable channel up to it in the manner proposed.

17. With regard to the manner in which it is proposed to connect the various railways with the proposed docks. Assuming that a junction is made between the Eastern Bengal and the East Indian Railways in the manner proposed by crossing the Hooghly at Paltah, the junction between the Eastern Bengal and the Muttah at Scaldah has only to be made to tie the three railways together; it is then proposed to form a branch out of the Muttah Railway, about two miles from Scaldah, crossing Tolly's Nullah near Tollygunge to run into a general station on the north quay of the import dock. Sidings would be laid along the various quays on the northern side of the docks, so that, when possible, cargoes could either be discharged directly into the railway trucks or shipped out of them in the manner it is done in most modern docks.

18. It will be seen that, by constructing a short additional length of railway, Government will be enabled to carry the proposed extension on to their Commissariat and General Stores at Cooly Bazar, and their Dock Yard, thus connecting them with the docks. This short extension will enable Government to send stores by railway direct from their Store Yard to the various up-country depôts without transshipping, which would save a large amount of expenditure both of time and money; a further extension of the same line along the banks of the river to the present Custom House and Bonded Warehouse would give good railway communication all along the banks of the river, and between the principal places of business of the merchants and the proposed docks, at very little cost.

19. It may be as well to point out that, if this project can be carried out, we shall get over the difficulty of connecting the Eastern Bengal and the Muttah Railways with the river side by a rail or tramway. The docks would entirely do away with the necessity of such an extension of the railways from Scaldah for goods' traffic. But if it is still thought advisable to make any such extensions, the docks would be a means of facilitating it; they would relieve the present crowded thoroughfares of their heavy traffic, and thus leave more space for a rail or tramway. We do not

think it would be wise to make such extensions, for the purpose it was originally intended, as all exports received by the railway from inland should go direct to the export dock, and all imports for up-country should go by rail direct from the import dock.

20. With regard to the estimates of capital, expenditure, and of revenue. The estimated cost of the docks is rupees 81,38,101, and of the canal, rupees 1,01,55,241—making a total cost of rupees 1,82,93,342.

The following estimate of revenue, which has been carefully arrived at from detail returns and information kindly placed at our disposal by the Secretary of the Chamber of Commerce, shows that the revenue will be sufficient to give a return of 12 per cent. on the total outlay, after the estimated cost of working expenses, viz., Rs. 8,01,421 per annum have been deducted.

# ESTIMATE OF REVENUE

*Based upon the imports and exports of the port of Calcutta between the 1st May 1861 and 30th April 1862.*

## INWARDS.

<i>Canal dues, assuming that three-fourths of the shipping frequenting the port pass up the canal,</i>	<i>Rs.</i>	<i>As.</i>	<i>P.</i>
490,354 tons, at Rs. 1 per ton	4,90,354	0	0

## DOCK DUES.

	<i>Tons.</i>
Tonnage of ships	Inwards, 653,805
under all Colors	Outwards, 653,150

2) 1,306,955

Mean... 653,477 @ 1-8 P ton, 9,80,215 8 0

## LANDING CHARGES,

*Including all charges for discharging cargoes into Railway Trucks or Warehouses or on to Quays.*

*Bales of bleached goods, unbleached goods, colored piece goods, and yarns, being a total of 285,917 bales, at 3 annas per bale* ... 53,609 0 0

Tons of metals, machinery, salt, coal, timber, ice, cowlage, tar, paints, &c., &c., being a total of	
495,430 tons, at Rs. 1 per ton	4,95,430 0 0
Hopheads of beer, 45,000 in No., at 3 annas each	8,437 0 0
Cases of wines and spirits, 96,846 in No., at 2 annas each	12,105 0 0

## SHIPPING CHARGES,

Including all charges for shipping cargoes from Railway Trucks, Warehouses or Quay Walls.

Tons of grain, saltpetre, indigo, gunnies, cotton, jute, and other country produce, being a total of	
682,294 tons at 12 annas per ton	5,11,720 0 0
Estimated revenue from warehouses	2,00,000 0 0

## OUTWARDS.

Canal Dues assuming that three-fourths of the shipping frequenting the port pass down the canal,	
489,862 tons, at Re. 1 per ton	4,89,862 0 0

Total Rupees 32,41,732 8 0

21. It is found that the present cost of landing cargoes from ships lying in the Hooghly to the Custom House Wharf is about rupees 2 per ton, and that the cost of shipping cargoes is about rupee 1-8 per ton, our reducing those charges respectively to 1 rupee and 12 annas per ton in the manner proposed by the docks, would cause a saving of rupees 10,81,301 per annum on those charges alone; but the following statement, showing the comparative charges on a vessel using the Hooghly and discharging and shipping her cargo in that river with the charges in the Mutlah, the proposed ship canal and docks show a total saving of rupees 32,50,136 per annum,\* so that the total saving effected in six years would cover the cost of the whole of the proposed works, after providing interest at the rate of 5 per cent. per annum on the amount of capital called up from time to time for the purposes of construction, which is a further and most substantial reason why

\* The present loss from pilfering from vessels and cargoes lying in the open river should be added to this sum to give an idea of the saving effected.

this project should claim the support of the Government and all interested in the port.

22. Comparative statement of the charges on a vessel using the Hooghly and discharging and shipping her cargo in the river, with the charges on a vessel using the Mutlah, the proposed ship canal, and wet docks.

## HOOGHLY.

Charges on a Vessel of 1,000 tons.

## INWARDS, &amp;c.—

Pilotage, 17 to 18 feet	370 0 0
Less for steamer	92 8 0
	277 8 0
Light duty 2 annas per ton	125 0 0
Buoy duty, $\frac{3}{4}$ anna per ton	46 14 0
Moyapore Magazine duty, $\frac{3}{4}$ anna	15 10 0
Marine registry	62 8 0
Steam hire, three days	1,050 0 0
	1,577 8 0

## IN PORT, 60 days—

Transporting into moorings	25 0 0
Hauling out	26 0 0
Use of moorings, say 40 days	360 0 0
Wages and provision, Rs. 60 per day	3,600 0 0
Interest on capital, at 5 per cent. for 60 days	1,666 0 0
Insurance on river risk $\frac{1}{2}$ per cent.	166 0 0
Depreciation for wear and tear, at 10 per cent. per annum	3,332 0 0
	9,165 0 0

## OUTWARDS—

Pilotage, 20 feet	600 0 0
Less for steam	150 0 0
	450 0 0
Steam hire, 3 $\frac{1}{2}$ days	1,225 0 0
" " return	200 0 0
	1,425 0 0

Total charges borne by the ship ..Rs. 32,617 8 0

*Charges borne by the Cargoes.*

Landing charges on discharging, say	
1,250 tons of cargo, at Rs. 2 per ton	2,500 0 0
Shipping charges on shipping, say	
1,250 tons of cargo, at Rs. 1-8 per ton	1,875 0 0
Total charges borne by the cargoes...	4,375 0 0
Total charges on a ship of 1,000 tons...	16,992 8 0
Total charges per ton register	16 15 10

## MUTLAH.

*With proposed Ship Canal and Wet Docks.*

## CHARGES ON A VESSEL OF 1,000 TONS.

## INWARDS, viz.—

Pilotage not compulsory, but say at	
first ... ..	100 0 0
Light duty ... ..	62 8 0
Buoy duty ... ..	23 7 0
Marine Registry ... ..	31 4 0
Steam tug ... ..	700 0 0
Canal dues, 1,000 tons @ 1 Ro. ...	1,000 0 0
	1,917 3 0

## IN PORT 30 DAYS—

Dock dues on registered tonnage, at	
Ro. 1-8 per ton ... ..	1,500 0 0
Hauling into berth ... ..	25 0 0
" out of berth ... ..	26 0 0
Use of mooring posts ... ..	50 0 0
Wages and provisions ... ..	1,800 0 0
Interest on capital, 5 per cent. ...	833 0 0
Depreciation 10 per cent. per annum	1,661 0 0
	5,895 0 0

## OUTWARDS—

Canal dues, 1,000 tons, @ 1 Ro. ...	1,000 0 0
Pilotage not required, but say at first	150 0 0
Steam hire ... ..	700 0 0
" " return ... ..	200 0 0
	2,050 0 0
Total charges borne by the ship ...	9,862 3 0

*Charges borne by the Cargoes.*

Landing charges on discharging, say	
1,250 tons of cargo, at Ro. 1 per ton	1,250 0 0
Shipping charges on shipping, say	
1,250 tons of cargo, at 12 annas per ton	937 8 0
Total charges borne by the cargoes...	2,187 8 0
Total charges on a ship of 1,000 tons	12,049 11 0
Total charges per ton register	12 0 9
<i>Comparison of Charges.</i>	
Hooghly ... ..	16 15 10
Mutlah, by ship canal & wet dock	12 0 9
Difference in favor of latter	4 15 1

being a saving of Rs. 4,942-11-4 on a ship of 1,000 tons.

23. Although the means of supplying the docks with water as above set forth is one of the main features of this project, and is considered the most sound in every point of view, yet, as it has been thought possible Government may look upon the proposed ship canal as competing with the Mutlah Railway, the capital of which they have guaranteed, an estimate has been made of the cost of supplying the docks with water from the Hooghly by providing settling basins at a suitable place on the banks of the river, which shows a considerable saving in the outlay, and does not give a corresponding increase to the working expenses; at the same time it should be fully borne in mind any such plan would not give the

port the great advantages of a ship canal from the Mutlah. The outlay that has been made on the Mutlah Railway will not be turned to profitable account, and a railway must be constructed a considerable distance down the Hooghly to put the port in anything like the same position that it would be in with the proposed ship canal.

24. With regard to the means by which the required capital can best be raised, if Government thinks well of the project, it might be disposed to undertake the works itself, and engage some responsible contractors to execute them; but considering the amount of work already in their hands, and the many claims on their revenue, it appears to us the required capital can best be raised and the works most successfully carried out by forming a joint stock company in England, but to raise so large a sum as that required it would be necessary for Government to guarantee it, and to make over the land in the manner it has done to the various railway companies: there is every reason to hope the required capital would then be speedily subscribed, for capitalists in England have already subscribed very large sums for carrying out similar works, and on the whole have received a good and certain return on their outlay.

#### FRANKLIN PRESTAGE.

Calcutta, 27th December 1862.

#### APPENDIX.

*Extract from Report of the Committee appointed by Government in May 1844 to enquire into the practicability of providing Calcutta with Wet Docks.*

1st. The result of the Committee's inquiry may be briefly stated, as leading them to recommend the

Conclusions. site shown on the accompanying plans, in the vicinity of Kidderpore, as the one in most respects best calculated for accomplishing the objects contemplated by the construction of wet docks.

2nd. They have ascertained that the cost of them, including the charge of an establishment for keeping them in efficient working order, will not exceed fifty lacs of rupees; and that, even from the very moderate dues proposed to be levied, they will afford a net annual revenue of four and a half lacs of rupees.

3rd. In illustration of the advantages which will be derived from the establishment of such docks, it must also be borne in mind that, by their introduction, the shipping interests will be benefitted to the amount of Co.'s Rs. 8,85,360\* per annum; and

further, that this calculation is exclusive of the saving (assuredly far from inconsiderable, but which they have not had the means of precisely ascertaining) arising from the security from losses, accidents, and damages afforded to ships using docks instead of lying in an open river, periodically exposed as is the port of Calcutta to strong freshes and tides (occasionally accompanied by "bores"), and not unfrequently visited by heavy gales and storms.

4th. The scheme thus recommending itself on general grounds, appears more especially worthy of the attention of those interested in the shipping frequenting the port, well known to comprise many of the finest merchant ships ever sent to sea.

5th. The Committee see reason to conclude that the proposal for establishing wet docks deserves the favorable consideration of Government, partly with reference to the fact that by their instrumentality the existing port charges might *without any financial loss be reduced* by an amount jointly estimated by Mr. Collector Currie and by the Master Attendant at not less than Rs. 1,78,083 per annum.

6th. It has already been shown that, by means of such docks, the shipping interests would annually save Rs. 8,85,360, and, finally, that docks so constructed would yield an annual, and probably rapidly increasing, revenue of Rs. 4,50,604.

7th. The Committee having these considerations, and all the other points which the investigation has elicited, in view, have therefore unanimously arrived at the conclusion that the construction of wet docks would be an easily practicable, as well as duly remunerative and highly beneficial, undertaking. They also are unanimously of opinion that the most expedient plan for raising the requisite funds would be by means of a joint stock company, aided by a grant from Government in the form of shares, and supported by it in a way that all experience has proved is best calculated to secure utility and to command success.

8th. The returns upon which the statement of income is based exclude, it will be recollected, a very large proportion of the

valuable and bulky produce exported from the country, as well as the minor articles brought to Calcutta from other Asiatic ports, and moreover from those of Europe, of China, and of America; and the estimates having been framed on a very liberal scale of expenditure, which the Committee confidently expect will not be exceeded, they have only, in conclusion, to record their conviction that the undertaking admits of easy accomplishment, and that it may be carried out in such a manner as (while affording a handsome return to the shareholders) materially to facilitate, and thereby speedily extend, the commerce of the capital of India.

W. N. FORBES, *Lieut.-Colonel, Engineers, President.*

A. IRVINE, C. B. " " "	} <i>Members of the Committee.</i>
H. GOODWYN, <i>Captain,</i> "	
J. BECKWITH,	
J. McKILLIGIN,	
M. GLADSTONE,	

J. SUTHERLAND, *Secretary,*

*Wet Dock Committee.*

*Calcutta, 1st May 1846.*

#### APPENDIX C.

*Letter of Government acknowledging the receipt of the  
Committee's Report.*

*From the Under-Secretary to the Government of Bengal, to the Wet  
Dock Committee, No. 1197, dated Fort William, the 13th May 1846.*

GENTLEMEN,—I am directed to acknowledge the receipt of your Secretary's letter No. 40, dated the 4th instant, submitting your final report on the construction of wet docks in connexion with the port of Calcutta, and to convey to you the thanks of the Deputy-Governor of Bengal for your zealous and well directed labors on behalf of this important public object, as well as for the body of valuable information you have collected, and the able manner in which you have set forth the practicability of the undertaking and the best method of accomplishing it.

2nd. His Honor approves generally of your suggestions, and will be prepared hereafter, should it be found practicable, to re-

commend for the consideration of the supreme Government, the outline of a plan for securing to the port of Calcutta the important advantages of export and import docks by means of a joint stock company, of which the Government will, if necessary, become a considerable shareholder.

3rd. It will however be proper, in the first instance, to ascertain how far the community may be disposed to view the subject in a favorable light, and whether the estimated returns are considered sufficiently sure and remunerative to tempt persons of capital and credit to organize and take shares in the proposed company, with a view to direct profitable investment, as well as to the indirect advantage arising from the economy which the existence of wet docks is calculated to introduce into the mercantile and shipping transactions of the port.

4th. With this view His Honor thinks it desirable that you should print your report and such parts of the proceedings as you may consider necessary, to place the public in possession of the facts upon which your recommendations are founded. The opportunity may also be taken of making known the desire of Government to encourage the work, and the satisfaction it will afford His Honor to learn that a sufficient number of influential and wealthy members of the mercantile and monied community are disposed to associate for the purpose of carrying it out. From such a body the Deputy-Governor will gladly receive proposals for forming a company either in the manner suggested, or on any other footing that on further consideration may be preferred.

5th. The several enclosures of your letter are herewith returned.

I have the honor to be, &c.,

(Signed) OECIL BEADON,

*Under-Secy. to the Government of Bengal.*

#### REPRESENTATIONS FROM MASTERS OF SHIPS PRE- SENTING THE PORT OF CALCUTTA.

To

THE PRESIDENT AND MEMBERS OF THE  
CHAMBER OF COMMERCE, CALCUTTA.

GENTLEMEN,—We, the undersigned commanders of ships frequent-

ing the port of Calcutta, beg to call your attention to the following impediments thrown in the way of the shipping interests here, thinking that they might be removed if you would kindly use your influence with the Government and mercantile community of Calcutta.

*Firstly.* Ships arriving at the Sandheads are very frequently ordered to anchor, and detained for pilots from one to ten days, and this sometimes with very great risk of life and property, as in the case of most of ourselves; not to mention the great inconvenience to passengers caused by the tide often bringing the ship's stern to the wind and sea, thus making it requisite to put the dead-lights in; all this happening, too, when a wind is blowing which would carry the ships to Calcutta.

We are prepared to prove that, had pilots been on the station in the early part of October, several ships would have been saved from one to three hundred pounds incurred for lost anchors and chains, steam hire, &c., not to mention time and wages;—all this too in a port whose ordinary expenses are about £500 per ship more than in most others.

To us there seem to be two ways of meeting this difficulty—either by increasing the number of service, or their power of locomotion; we understand that the number of pilots is not greater than, if so large as, when the trade of the port was but half what it is at present; whilst the same class of vessels is employed to supply them to ships. We would suggest that the pilot vessels should be steamers, fitted to use their sails only in all ordinary circumstances, most of their expense would be repaid to Government by their towing disabled ships; then when the station has no pilots a steamer might convey the detained fleet into comparatively safe anchorage at Saugor, or their officers might be sent in with these ships when the wind was fair, and a steamer might fetch these officers out again; for it must be remembered that the southerly wind which makes the anchorage at the Sandheads dangerous is a fair wind into Saugor roads.

Another great impediment is there being no Upper Gasper Light after September, which prevents pilots from bringing disabled ships into safe anchorage. For example, a few days since, a ship with a broken windlass had to anchor near the lower Gasper Light using a kedge anchor, and that with 300 soldiers on board,

endangering their lives when an upper light would have led them into safety.

We suppose that two steamers at the Sandheads would do much more service than three brigs; and having steam at their command would supply that power of expansion which the service requires, for we are told that at some seasons of the year its present state is sufficient for the demands of the port.

The expansion alluded to would be obtained by a very fast steamer of very light draft, to bring down pilots to all ships lying at Saugor without them, or to one of the pilot steamers waiting there to receive the pilots and carry them to ships at anchor at the Sandheads. If this be found not sufficient, the service should also be increased.

*Secondly.* On arriving in Calcutta, ships are frequently exposed to much risk by having to moor in a stream running more than seven miles an hour, making it dangerous to approach them by boat; if they should be fortunate enough to escape breaking their cables and cutwaters, or collision with others that have done so, they must bury an anchor, so that great labor and expense is required to weigh it.

Expensive moorings are provided, but not a sufficient number for the trade of the port, and if ships arrive during a native holiday, the European officers of all Government appointments must have extra pay, which is charged to the ships:—we allude especially to the harbour masters and Custom House officers.

*Thirdly.* We would call your immediate attention to the great risk of fire which threatens all ships in moorings, from the blazing wood-fires and unrestricted naked lights on board the large number of dinghies and other boats covered with mats and straw, which lie between them and the shore. A fire that should destroy the double line of ships from Baboo Ghant to Fort Point, would be followed by some stringent rules respecting fire. Why should they not be made now? for "prevention is better than cure." In London fires are not allowed in docks: why should boats composed of wood, mats and straw be allowed to light naked fires to windward and under the very bows of a line of ships full of life, and worth with their cargoes upwards of a million of money. How often, too, are men seen smoking on the thatched roofs of boats in the same position.

*Fourthly.* When our ships are up this difficult river and moored, the next troubles are the impediments thrown in the way of discharging cargo.

In Madras (by a general agreement) the agent of each ship lands her cargo, which does away with the necessity of assorting it in the hold of the ship (warm work for European sailors in this climate), by which means the cargo is out quicker, cheaper, and in much better order, because the consignees of goods have not to keep empty boats waiting alongside until the goods are at hand : and the goods are not rolled over several times before being discharged for the purpose of finding those whose consignees have boats alongside. All drinkables, glass, red lead, &c., suffer much in this way, and most of the packages landed broken receive their injury in this port after the ships' arrival. Here is another great source of expense to ships. In Madras the agents of the ship are allowed to detain the goods in the Custom House until the boat-hire is paid. A law of this kind would be most valuable here. The Custom House might protect itself by charging a fair rate on each package left there over a certain time.

Consignees tell us that the state of the Custom House as to capacity and system is such that this plan could not be carried out here, but surely the Custom House capabilities should grow with the trade of the port; what is done elsewhere may be done here. How is work carried on in other cities having large and rapid rivers; do not large ships discharge their cargoes in a few days (we might almost say hours) in all places where the Government and mercantile community combine to give despatch to shipping?

*Lastly.* Another impediment is that ships are prevented from discharging or taking in cargo on both sides, unless they incur the expense of a second Custom House officer—surely the Custom House should watch its own interests (supported as it is by heavy duties) without cramping the free action of ships. Not knowing how land may be owned by Europeans in Calcutta, we do not feel able to suggest the best way for supplying the port with the usual appendages of wet docks, wharves, sheds, warehouses, tramways, &c.—all we can say is that other ports have them, and Calcutta needs them. If that part of the Calcutta side of the river which is devoted to ships be full, surely moorings or wharves might be constructed further north, in a part, too, where good sheds and warehouses

would be a great improvement on the wretched huts and filthy open sewers which line the banks of the river. Then again parts of the other side might be converted into wet docks, &c., &c., which with a branch Custom House would give the merchants the means of storing goods ready to be sent up-country by railway.

We feel that in asking you to devise a plan by which these difficulties will be remedied, and to introduce the subject to the Government of Bengal, suggesting the improvement you think requisite, we are only seeking that safety and accommodation for our ships which the advancement of the age has made usual in all civilized parts of the globe, and trust that those enterprising members of your community who may embark their ability and capital towards the carrying out of a well-formed scheme may be amply rewarded for their well directed endeavors.

Calcutta, December 6, 1861.

Edward Hight, Commander,	Ship	"Renown"
W. Owen,	"	"Nile."
Henry Toynbee,	"	"Hotspur."
Thomas Pain,	"	"Patrician."
William Connell,	"	"City of Madras."
Wm. Bond,	"	"Nugget."
Lawrence Webster,	"	"Jallawar."
E. Coulthurst,	"	"Moorefort."
William Grierson,	"	"Asia."
James Toynbee,	"	"St. Lawrence."
R. Wilson,	"	"Rowena."
Wm. Ja. Ferris,	"	"Holmsdale."
A. Hutchison,	Steamer	"Lancefield."
Joseph Watson,	Ship	"Clarence."
Robert Deas,	"	"Conflict."
John Purly,	"	"Bickly."
Robt. Wright,	"	"Ramilies."
James Cammell,	"	"Middlesex."
Thomas Nickels,	"	"Blanche Moore."
H. P. Koon,	"	"Utopia."
W. Howard,	Barque	"Poitiers."
James M. Outridge,	Ship	"Champion of the Seas."
Gustavus R. Kirby,	"	"Athenais."



Jno. Deal,	Commander, Ship	"Oriza."
Wm. Henry,	" "	"Warrior Queen."
H. Mangere,	" "	"N. Dame de Victoires."
F. Gachet,	" "	"St. Vincent de Paul."
Inno Bogart,	" "	"Hors."
Robt. Thomson	" "	"Scafell."
Samuel Parry,	" "	"Samarang."
Peter Hickman,	" "	"Maharatta."
C. H. Middleton,	" "	"Maria Hay."
M. Clarke,	" "	"Geologist."
John McDougall,	" "	"Helen Douglas."
Duncan Nicholl,	" "	"Mooltan."
Thomas Moore,	" "	"Victoria Regia."
William Pearce,	Barque	"Heversham."
Robert Blair,	Ship	"Talarera."
William Clark,	" "	"Arethusa."
John Sergeant,	" "	"West Derby."
K. McKenzie,	" "	"Pudsey Dawson."
F. Monnerot,	" "	"Joachim."
L. Beliard,	" "	"Xantho."
Geo. H. Forster, R. N.,	S. S.	"Hydaspes."
G. P. Ponsier,	Ship	"Rubens."
W. Lerdy,	" "	"Union."
H. Frazer,	" "	"Decide."
T. Vincent,	" "	"Marie."
D. Fowler,	S. S.	"Thunder."
Geo. Ross,	Ship	"Hashemy."
Charles Hodder,	" "	"Camperdown."
S. B. Sheard,	" "	"Adamant."
Frank Putt,	" "	"John Chism."

Mr. Longridge's description of the Mutlah extracted from his Report on the Calcutta and South Eastern Railway, dated 21st May 1857.

#### THE MUTLAH.

66. The Mutlah, the sea entrance to which lies about forty miles to the eastward of the Hooghly, may be rather designated an inland creek or arm of the sea than a river, inasmuch as the fresh water

entering it is extremely small. It is of great depth, in no place less than four fathoms at low water spring tides. It is free from shifting sands, and the channels appear to have suffered no material alteration from the year 1839 to 1853, when it was last surveyed by Lieut. Ward, who reports to that effect.

He also states that the banks at the sand heads afford good anchoring-ground, and that the tides run with a velocity of four and a quarter miles per hour during the springs, and about two miles in the neaps.

67. It communicates with Calcutta by means of the Biddi-dhurree, and the Ballinghatta and Tolly Canals, and with the vast system of inland navigation by the Attara Banka, the Hoogledoo Creek, and the Biddiah River, the former at the head of the Mutlah, the second at the west end of the East and West Reach, about ten miles lower down, and the last at the Cattaloe.

These rivers, unlike the feeders of the Hooghly, do not bring down large volumes of fresh water charged with silt, but are rather vast receptacles for tidal water, flowing up and down twice in the twenty-four hours, and thereby scouring and preserving the channels of the Mutlah.

68. The Mutlah is also free from the bores of the Hooghly, so destructive to life and property, and it would afford accommodation for an immense amount of shipping of the largest size. Making allowance for a large increase in the average size of vessels, I have showed in the memorandum addressed to the Government of India, 13th December last, that what I have there termed the upper site, would accommodate from 230 to 240 ships, and the lower site in the neighbourhood of Ekoo Creek 650 ships of the largest size, and still leave ample room for ships swinging in the stream. So far then, as regards accommodation for shipping, it cannot be denied that the Mutlah possesses natural advantages far beyond the Hooghly.

69. I will now examine it with reference to facility, economy, and safety of access.

As regards the question of entrance it is one upon which any opinion of mine would be of no value. I shall therefore only remark that having read and attentively listened to all that has fallen in my way with reference thereto, I have met with no objection which has not been fairly and fully met by those who are

probably equally competent to form an opinion with the objectors themselves.

70. It is different when we come to the respective merits of the rivers as channels of inland navigation.

Here the question is much narrowed, and is within the province of the engineer as much as of the seaman.

71. In the first place then the freedom from bora and freshes, and the comparative slackness of the stream of tide, are advantages which cannot be denied to the Mutlah.

72. Secondly, we can show by the soundings a far superior channel for navigation.

This will be best seen by an examination of the low water sections of the two rivers appended to this report. That of the Hooghly represents the low water spring tide depths in mid-channel, according to Lloyd's survey of 1836, since which time there is evidence to show a deterioration rather than an improvement.

The section of the Mutlah represents on the same scale the low water spring tide depth in mid-channel, from Ward's Chart of 1853.

73. The first observation which presents itself is, that the distance from the head of the Mutlah to the sea opposite Bulcherry Island is 115,000 yards, whereas from Calcutta to Middleton Point is 174,000 yards, being a saving of river navigation in favor of the Mutlah of 59,000 yards, or about 33½ miles.

74. In the next place, if we consider as shoals all places with a less depth of water than twenty-four feet at low water spring tide, we shall find the comparison as follows:—

## MUTLAH.

No Shoals.

## HOOGHLY.

No.	Distance of Shoal from Head of River.	Length of Shoal.	Least depth of Water in Shoal.	
			in Feet.	
1	... 25 miles.	... 800 yards.	... 16½	feet.
2	... 40 "	... 1,800 "	... 15 "	
3	... 44 "	... 1,800 "	... 18 "	
4	... 60 "	... 5,000 "	... 17 "	
5	... 75 "	... 7,000 "	... 16½ "	
6	... 90 "	... 8,500 "	... 15 "	

75. We also find that to give a depth of 30 feet at low water, the Mutlah would require deepening at four places, by a depth of from zero to 6 feet for an aggregate length of 3,200 yards, whilst the Hooghly, to obtain the same depth, would require deepening at seven places by a depth of from zero to 15 feet, and extending over an aggregate length of 45,000 yards.

This may be shown more distinctly to the eye by the diagram, No. 2, in which the shoals are drawn to the same scale, and all collected together, the part colored red being that part of the river bed which would require to be removed in each case to obtain a depth of 30 feet at low water.

76. But this difference, striking as it is, does not represent fully the superior advantages of the Mutlah. It is not only the existence of the shoals, which must be looked at, but their position. It is obvious that a shoal, on which there is only a depth of 16 feet water, would even, though six miles in length, be of little consequence as compared with six different shoals, separated by intervals of miles from each other. In the former case, a vessel, with the aid of steam, might choose her time of tide, and having passed over the shoal, proceed to sea without further obstruction; whereas, in the latter case, she can only pass over one or perhaps two of the shoals, according to their distance, in each tide, and must then cast anchor till the next tide, to get over one or two more, and so on. This is exactly what happens in the Hooghly, where the lowest down shoal is sixty-three miles from the first, whereas in the Mutlah, besides the shoals being much less, both in extent and height, they are all comprised within a distance of thirty miles, or if we neglect the first and last, which are very inconsiderable, and might very easily be removed, the only then existing shoals would be within a distance of 3½ miles.

77. This is a matter of very great importance, as it involves not only a difference of time and money, but also of risk, for in a river like the Hooghly, it may often occur that vessels cannot anchor with safety at all times in those places where they would require to wait for the next tide to float them over the next following shoal.

78. It would be tedious to point out all the advantages resulting to the Mutlah from such a state of the channels as is described above, but it may be stated generally, that whereas a ship drawing

24 feet water could only get to sea from Calcutta by the aid of steam, and under the most favourable circumstances, in three or four days, or in the south-west monsoon in five days, the same vessel could at all times get to sea from the head of the Mutlah in one day.

79. Before leaving this part of my subject, I must call your attention to the fact, that a saving of one to two days in the despatch and delivery of the mails between Calcutta and England would be attendant upon the adoption of the Mutlah route. This has been forcibly pointed out in some remarks I have been favored with by a gentleman well acquainted with the subject. I therefore transcribe what he has written, merely promising that I quite agree in his conclusions. He says:—

“It is to be remembered that, in the Hooghly, vessels must await the rise of the tide, in certain parts of the river, to enable them to cross the beds of sand in those places. In the Mutlah there are no such bars, and the largest ship can pass through it at dead low water, consequently, supposing a railway between Calcutta and the Mutlah, the mail might leave Calcutta at 9 A. M., and would arrive at the Mutlah station at 10. The steamer might start at 11 A. M. always, which would enable her to get to sea with certainty before dark as the distance is only seventy miles.

“Starting from Garden Reach on the Hooghly, at the same time the steamer would not get to sea under the most favorable circumstances until the following evening, and would thus be twenty-four hours later than from the Mutlah, but it sometimes happens during the neap tides, that the mail steamer does not get to sea until the third day after her departure from Calcutta. At such times the Mutlah route would save forty-eight hours or two days. The mail steamer *Nubia*, which has just left Calcutta, affords an instance of this. She started from Garden Reach at 10 A. M., on the 9th instant, and will not get to sea before late on the afternoon of this day (the 11th) which is the third day.

“As respects the inward bound steamer, if she arrives at night she must wait for daylight, even in the clearest and brightest moonlight. There would be no such necessity in the Mutlah, except during dark nights. It consequently happens that the mail steamer does not arrive off Garden Reach till the day after her arrival in the Hooghly, owing to the various sand bars before named.

In the Mutlah she might come right up in six hours without any obstructions whatever, might deliver the mail to the train, and the letters might be sorted ‘en route,’ and be ready for distribution on arrival at Calcutta. Thus a day, and sometimes more, might be saved in the transmission of letters from England to Calcutta, the importance of which is left to the consideration of the public.”

80. I myself had an instance of this delay to the mail steamers in the Hooghly.

I left Garden Reach in the steamer *Bentick* at 6 A. M. on the 9th April last, with a draft of water of 19 feet 2 inches.

The moon being at the full, the tides were spring tides. We only got as far as the bottom of Oolabaria Reach and were obliged to anchor for two hours, waiting for water to carry us over the Moyapore Sand. We started again at 10-15 A. M., passed the *James* and *Mary* at about 1-30, and anchored again at Culpo at 2-45 P. M.

Here we remained for want of water till 8-45 on the 10th, when we got under weigh, and arrived at Saugor at 2-25 P. M., where we again anchored for the night, there not being water to carry us through the Gasper Channel.

We left Saugor on the morning of the 11th, and the pilot left us at 11-40 A. M., so that we had been fifty-four hours in getting fairly to sea and this, too, at the time of the spring tides, and in a steamer drawing only 19 feet 2 inches water, and with fine weather. From the head of the Mutlah we might have been at sea in ten hours with the greatest ease.

81. The saving of money consequent upon the adoption of the Mutlah route would be no less striking than that of time.

82. To show this, I have prepared the annexed statements, showing the charges upon a ship of 1,000 tons in each river, and resulting in an economy of 11s. 9d. per ton in favour of the Mutlah.

83. This arises chiefly from the three items of pilotage, steamer hire, and the greater despatch in loading and unloading.

84. With respect to the two former, I need not add anything to what goes before: but in reference to the latter I may remark, that I have every reason to think it is understated. This will, perhaps, be more readily admitted if I point out briefly the chief causes of delay in the Hooghly.



Marine registry ...	31	4	0
Steaming ...	350	0	0
	567	3	0

**IN PORT (40 days)—**

Hauling into wharf ...	25	0	0
" out of " ...	26	0	0
Use of mooring posts ...	50	0	0
Wages and provisions ...	2,400	0	0
Interest on capital, 5 per cent. ...	1,111	0	0
Insurance on river risk $\frac{1}{2}$ per cent. ...	62	0	0
Depreciation, 10 per cent. per annum ...	2,221	0	0
	5,895	0	0

**OUTWARDS—**

Pilotage, not required, but say			
at first ...	150	0	0
Steam hire ...	350	0	0
" " return ...	200	0	0
	700	0	0
	7,162	3	0

Charges per ton, 7,162 Rs. = 14s. 3d.

**89. Comparison of Charges—**

	s.	d.
Hooghly ...	26	0
Mutlah ...	14	3

Difference in favor of Mutlah ... 11 9 per ton.

Being £587 10s. on a ship of 1,000 tons.

90. From the above remarks I think it is apparent that the Mutlah possesses natural advantages which cannot be claimed for the Hooghly, nor do I believe that an enormous outlay in original work and maintenance would put the latter river on an equality with the former.

91. This being the case, we have a right to assume that a very large amount of tonnage will be attracted to the new port. It is not likely that the Hooghly will be entirely deserted; but rather

ci

that the rapidly increasing traffic of this part of India will seek the superior outlet of the Mutlah, and that the larger class of vessels and steamers will ere long be found there.

*Calcutta, 14th January 1863.*

To

**THE PRESIDENT AND COMMITTEE OF THE  
BENGAL CHAMBER OF COMMERCE.**

GENTLEMEN,—Since laying before you my project for providing wet docks for the port of Calcutta, and for opening a communication between Calcutta and the Mutlah by means of a ship canal in connection therewith, I find a very general opinion exists as to the necessity of providing docks, while, at the same time, there is some difference of opinion as to the need of the canal, this difference of opinion being due to the fact that the positive deterioration of the navigable channel of the Hooghly has never yet been placed beyond dispute.

I think it proper therefore to inform you, that it is by no means necessary, in the first instance, to construct the canal. At starting, the docks alone might be made, and during the preliminary operations careful surveys and observations should be undertaken to ascertain the real state of the Hooghly. Should it be found that the river is deteriorating, arrangements should be made to start the ship canal; if, on the contrary the navigation of the Hooghly is not impeded, I should propose that a conduit should be constructed only, sufficiently large to bring up enough water from the proposed settling reservoir at the Mutlah to supply the docks, the proposed conduit being so laid out, and the excavation from it so deposited, that at any future time the channel might be deepened and converted into a ship canal. I have estimated that the cost of such a conduit, and that of converting the Angachia Khall into a settling reservoir, would be about Rupees 16,00,000, making, with the estimated cost of the docks, a total of Rupees 97,00,000, or, in round numbers, a million sterling.

I am thoroughly convinced that if docks are provided for this port they must be supplied with water from some other source

than the Hooghly, as the water in that river would soon become foul, and convert the dock into a source of disease and danger to the surrounding neighbourhood. It should also be remembered that, in the event of its ultimately being considered necessary to make the ship canal, the proposed outlay on the conduit and settling reservoir at the Muttah will be turned to good account; whereas if it was even thought the Hooghly water might be made fit for the purpose, by passing it through settling reservoirs on the banks of the river, the expenditure on such works would be lost, added to which, the docks would have to bear the great and constant cost of periodically cleansing any such reservoirs.

I have the honor to be,

Gentlemen,

Your most obedient servant,

FRANKLIN PRESTAGE.

No. 4.

*Calcutta, 20th January 1863.*

To

THE PRESIDENT AND COMMITTEE OF THE  
BENGAL CHAMBER OF COMMERCE.

GENTLEMEN,—As I presume you will shortly be enabled to arrive at some decision as to the merits of the project I lately placed before you for providing wet docks to the port of Calcutta, and as it appears to me very important some expression should be got both from your Chamber and the Government before Mr. Pardon leaves this country for England next month, I beg to submit the course which Mr. Pardon and myself would recommend as the one that appears to us should be followed to ensure the successfully carrying out of the object we have in view.

In the event of your Chamber's decision being favourable to the project, we would suggest that a Committee should be formed of some of your members who are most interested in the shipping of this port and who might be disposed to take an active part in forming the local board of a public company to carry out the proposed works; it would also be necessary to secure the services of some gentleman who would act as secretary to the committee,

and who with a thorough knowledge of the port and its requirements could give the necessary amount of time to assist in obtaining the required information and support to enable the promoters to go before the English public.

At the same time we would suggest that no time should be lost in appointing an engineer and surveyors to make the necessary surveys, so that the position of the docks and the exact mode of supplying them with water could be determined, the proposed surveys of the Hooghly should also be started, and comparative sections of that river compiled from the most reliable charts that have been in existence, say for the last fifty years, such sections would at once show the state of the river in so clear a manner that it would not even require an engineer to perceive whether it is deteriorating or not.

Your Chamber must be well aware all this cannot be done without a certain amount of expenditure. I therefore now lay before you an estimate of the probable cost of the necessary establishments with a suggestion of how the money may be obtained. To begin—I would wish to point out that I should be glad to act under the committee's instructions, and if necessary to continue to give time and attention to directing the survey and engineering operations gratuitously, but my present duties would not admit of my giving the whole of my time to them, nor indeed would it be necessary that I should do so.

I estimate the cost of establishment as under:—

*Secretary's Establishment.*

Salary of Secretary, say per mensem	800	0	0
Office establishment of do.	...	100	0
		900	0

*Engineering Establishment.*

An Engineer who should give his whole time to engineering and surveying operations, per mensem...	800	0	0
A Surveyor, do.	250	0	0
Draftsman and Native Establishment, per mensem	150	0	0
	1,200	0	0
	2,100	0	0

making an expenditure of rupees two thousand one hundred per annum.

Considering the great importance of not losing the present working season, and of laying this project before the monied interest in England at a time so much capital is seeking investment, and from what passed at an interview I lately had with His Honor the Lieutenant-Governor of Bengal, I entertain great hopes that upon receipt of an official application from the proposed committee the Government would advance the amount required to meet the necessary expenditure for this season, which would be about Rupees 15,000, and I do not think it would be unreasonable to also ask for the sum of Rupees 5,000 for preliminary expenses for forming a company in London, making in all a total advance of Rupees 20,000 which might be returned to Government when the company's arrangements are completed.

There is one point which I omitted to point out to your Chamber and which I think may have some weight with you in deciding in favour of the docks, at present the tidal wave in the Hooghly is very much checked by the number of large ships moored in the stream of that river, off Calcutta, and the consequence is that the sweep of the ebb is very much weakened.

By removing the ships from the stream in the manner proposed by giving them wet dock accommodation there would be every reason to hope the sweep of the ebb would be strengthened, which no doubt would lead to the channels of the river being deepened, at least we have this fact before us that the Thames has very much improved since the year 1823, and engineers attribute the improvement partly to the removal of old London Bridge and partly to the large ships being removed from the pool by giving them wet dock accommodation.

I enclose a comparative section showing the state of that river in 1823 and 1850, which clearly shows the improvement that has taken place.

I have the honor to be,

Gentlemen,

Your most obedient servant,

FRANKLIN PRESTAGE.

Calcutta, 4th February 1863.

To

THE PRESIDENT AND COMMITTEE OF THE  
BENGAL CHAMBER OF COMMERCE.

GENTLEMEN,—Your Secretary having informed me of your intention to take the sense of the whole of the mercantile community upon the merits of the project I have lately laid before you for providing wet docks to the port of Calcutta, I now wish to submit for the information of such of your members as may not be disposed to peruse the whole of the details I have already laid before you a brief description of the advantages the proposed docks would be to your port.

1. Instead of the ships frequenting the port being compelled to lie in an open river subject to bores and fearful currents with a considerable amount of rise and fall of tide, making it difficult, and at times very dangerous, to approach them, they would be snugly berthed in a dock at a uniform level without any strain on the ship, and so that any one may step aboard from the quay walls.

2. Instead of ships being compelled to lay in the port for weeks discharging and shipping their cargo in the most primitive manner by having it either landed or put on board by cargo boats manned by indolent natives, they would be brought under warehouses or quay walls and be loaded or unloaded in a few days either by steam or hydraulic machinery, and thus be almost independent of native labour; this arrangement would enable ships to clear the port in about quarter the time they often take at present.

3. Instead of cargoes being pilfered as at present in their transit either to or from the ships they would be most completely protected. The dock committee of 1844 set down the yearly saving under this head alone at Rs. 10,29,472 per annum; according to the present tonnage of the port and at the dock committee's estimated percentage the amount would now be increased to Rs. 23,00,000.

4. Instead of ships being exposed to fire as at present they would also be most completely protected from it.

5. Instead of merchants being compelled to keep up large European and Native establishments that they each may land, protect,

store, and forward their goods; if they wish they may be relieved of all these duties by the dock house establishment in the same manner as in the London and other modern docks.

6. By concentrating the shipping in docks at a convenient spot all the railways could be carried to them which would allow of cargoes being loaded directly into railway trucks or unloaded out of them; and considering the enormous quantity of exports and imports that will find their way either to or from the port by the various railways, this is an advantage that should not be lost sight of.

7. By concentrating shipping in the manner proposed and in a healthy neighbourhood provision might be made for properly quartering the crews instead of compelling them to seek quarters and recreation in the most filthy and unhealthy parts of the town as at present, this coupled with the advantage to the men of only being a few days in the port instead of, some times, months, could not fail to benefit a large and deserving class of our fellow countrymen.

In the estimate I lately laid before you, showing the comparative charges on a vessel coming up the Hooghly and discharging and shipping her cargo in that river with the charges on a vessel using the Mutlah the proposed ship canal and wet docks, I showed that after setting apart sufficient revenue to give a return of 12 per cent. on the total outlay a direct saving to the shipping of the port would be effected of upwards of £320,000 per annum.

An estimate that I have since prepared shows that if it is proved to be only necessary to make the docks and supply them with water in the manner proposed in my letter of the 14th ultimo to your Chamber, there will be a saving to the shipping of the port of upwards of £356,000 per annum, after setting apart sufficient revenue to give a dividend of more than 16 per cent. on the outlay. Most of these advantages will have long since been patent to many of your members, for I observe in the Report of your Chamber from 1st January 1859 to 30th April 1860, you say "the time has arrived however when nothing less than the absolute possession of wet dock accommodation will satisfy the increasing requirements of the extending commerce of Bengal; the trade of the port has never been so urgently in need of it as at the present moment, and its incessant increase adds largely to the necessity for providing accommodation commensurate with its actual and prospectively greater demands."

I would wish to point out to such of your members as may be in favour of giving some more incomplete temporary or probably cheaper accommodation than that proposed by building quay walls along the banks of the river or running jetties into the stream, that it is not a matter of opinion but a "matter of fact" that wet dock accommodation is far superior to and in the long run cheaper than any other. It appears to me we cannot do better than benefit from the experience of the merchants and engineers of the two principal ports in the world, viz. London and Liverpool, and we have before us the undeniable fact that the former port possesses some 330 acres of area in wet docks and about fourteen miles of quayage, and that the latter has some 404 acres in docks and about twenty-five miles of quayage, also that the wet dock accommodation in both ports is still being increased.

Although the question of providing wet docks has often been brought to your notice, and your Chamber has strongly urged on the Government the necessity of their being constructed, I venture to submit that from all I can learn you have never had any scheme laid before you holding out such benefits as the one now proposed.

I would also wish to point out that it now rests with your Chamber and the commercial community whether your port receives the required accommodation, for I have reason to believe the Government are prepared to do all we can ask or expect of them, and some gentlemen who have the confidence of the Home Government and public are prepared to bring the scheme before the English public, with a view to get the required capital subscribed.

I have the honor to be,

Gentlemen,

Your most obedient servant,  
FRANKLIN PRESTAGE.

Calcutta, 6th February 1863.

To

H. W. I. WOOD, Esq.,

*Secretary to the Bengal Chamber of Commerce.*

SIR,—with reference to my previous communications on the subject of wet dock accommodation for the port of Calcutta, I



beg to state, for the information of the Committee of the Chamber of Commerce, that, having submitted the project for the consideration and opinion of Sir Arthur Cotton, I have been favored with the following expression of his views, which, I am sure, will command your Committee's attention.

Yours faithfully,

FRANKLIN PRESTAGE.

*Benares, 1st February 1863.*

MY DEAR SIR,—I regret that my late travelling has prevented my sooner giving to your letter of the 17th ultimo the attention it required. In reply to your first point, the necessity of improving the means of shipping and discharging cargoes at Calcutta, I cannot consider the present barbarous system of anchoring vessels in a tide way, and loading and landing cargoes by means of boats, as anything but entirely discreditable in one of the most important ports of the British Empire, the outlet of the largest population of all the ports of the world. That such a port should be without the means of shipment, which every civilized country recognizes as indispensable, I conclude can only be accounted for by the unbounded field for enterprize and capital that India offers in so many other directions; I cannot, however, think that any matter calls more earnestly for the efforts of the Government and the public than this, of relieving this great port from its present extraordinary expenses and delays.

2.—With respect to the means now proposed by you, viz., wet docks, I am fully satisfied that no others can at all meet the demands of the case. Nothing else can possibly secure the requisites of cheap landing, quick dispatch of ships, and safety from fire, pilfering, collisions, &c.

3.—On the question of estimates I am unable to give an opinion on the cost, not having either experience or local knowledge for it, but I have no doubt as to the saving, so far as I am able to judge, both in the shape of returns to a dock company and of saving to the merchants and ship-owners; that such enormous port expenses as those of Calcutta should have been so long borne, when the

remedy is so obvious, would be strange indeed, but for the reason I have already alluded to.

With respect to the Mutlah canal, my opinions are:—

1st.—All experience leaves no room for questioning this principle, viz., that the ships must come to the merchants. All ideas of connecting a distant anchorage with the merchants' offices and warehouses by land carriage are utterly futile, and it is, if possible, still more so to remove an established mercantile community to a new anchorage. Calcutta must continue to be the seat of the mercantile community, and therefore the sole question in my judgment is how the ships may be best brought to them.

2nd.—I consider the present evils connected with the Hooghly navigation insufferable, because they can certainly be in a great measure removed, and, I think, at an expense abundantly within the expense that the saving would justify.

3rd.—The matter, according to my view, is then reduced to this point: which would be the cheapest and most effective, to improve the Hooghly? or to cut the Mutlah Canal? I feel sure that the Hooghly could be greatly improved at a practicable expense, but I see no possibility of its ever being made equal to the Mutlah, according to the report given of that river, nor indeed of its ever being made such a navigation as a first class port requires.

4th.—So far, therefore, as the present papers and my acquaintance with such matters go, I am entirely in favor of the Mutlah canal.

5th.—With respect to the cost of that work, I must add that, judging from the cost of dredging in the Gloucester Ship Canal, and in the Clyde, as well as at Coringa, I think the cost greatly over-estimated: dredging on a large scale, even in deep water, has of late years been so greatly reduced in cost, that it is far cheaper than dry excavation.

I do not attempt to do more than give you my opinions, on what appear to me the leading points in your scheme: I wish they were of more weight; but I cannot say less than that your whole scheme most highly approves itself to my judgment, and I most honestly wish that it may be taken up by both the Government and the public.

It must not be forgotten, in judging of this matter, that your calculations are based upon the present trade of the port; whereas, if the country is blessed with peace, and the extension of communi-

cations and other internal improvements are continued, it is impossible to calculate what the trade of Calcutta will increase to in a few years.

I remain,

My dear sir,

Yours faithfully,

(Signed) A. COTTON.

BENGAL CHAMBER OF COMMERCE,

*Calcutta, 24th February 1863.*

F. PRESTAGE, Esq.

SIR,—I am directed by the Committee of the Chamber of Commerce to inform you that they have had under consideration your letters of 27th December, 14th and 20th January, and 4th and 6th February, and to communicate the following remarks upon the subject of wet docks as submitted therein.

Since the year 1844 when the question of establishing wet docks for the port of Calcutta was referred to a committee by the Government of Bengal, the subject has been frequently before the Chamber of Commerce, who have on every occasion expressed an opinion favorable to their construction, and they see no cause to think less favorably of the project now.

That increased facilities for carrying on the yearly augmenting trade of this port are urgently demanded the Committee entirely agree with you.

They also concur in your opinion that the facilities which wet docks are capable of affording, due regard being had to their sanitary influence on the locality in which they may be placed, are greatly superior to what can possibly be afforded by the quay wharves or screw pile jetties which have been suggested as alternative schemes (even were it certain that such works could be solidly constructed at a reasonable cost) both on account of the greater despatch which wet docks would permit in the discharge and loading of cargoes, and also by the far greater protection which they would afford against pillage.

Even if the projected improvements of the river bank involved in quay wharves and jetties alluded to were carried out, the Committee have no hesitation in expressing their belief that the advantages of wet docks would be so decided that the bulk of the shipping frequenting this port would resort to them, provided they can be constructed and maintained at such a reasonable outlay as will admit of the dock charges being fixed at a moderate sum proportioned to the saving of time which they would render possible.

The Committee cannot however undertake to express any decided opinion on the special project laid before them by you. There is they think this tangible objection to the scheme for a ship canal from the Muttah,—that the canal dues, inwards and outwards, which are set down at Rs., 2,000, (and which could not probably be much reduced in consideration of the costly nature of such an undertaking) exceed the saving of steam hire and other charges incurred by a vessel coming up the Muttah in preference to the Hooghly, and including the canal transit there would be little saving of time. There being thus no advantage to vessels coming up the Muttah they would continue to use the Hooghly. The latter river, it is true, is more dangerous to navigation, or at least is said to be so, but there is a great conflict of opinion whether the river is deteriorating at all; and many of the accidents which take place are doubtless owing to deficiency of towing power in the tugs employed, whilst some are traceable to the inefficiency of the pilots. Moreover the increased danger at certain seasons of the sea approach to the Muttah counterbalances to some extent the comparative safety of its river channel.

The Committee are disposed to think more favorably of the modified scheme for constructing a mere "conduit," for supplying the wet docks with water, which might ultimately be developed into a ship canal should the Hooghly be really found to be becoming less navigable.

Having thus generally expressed their opinions upon the more prominent features of your project the Committee do not think they are in a position, with the information at present before them, to do more than recommend to His Honor the Lieutenant-Governor the appointment of a committee to inquire anew into the whole question of wet dock accommodation. The abundance of unemployed

capital in England at this time, and the greater favor with which Indian investments are at present regarded renders this an auspicious moment for launching such a scheme; and the Committee are strongly of opinion that if it were placed on the money market in London backed by the recommendation of a mixed mercantile and official committee, the necessary capital would be raised there without difficulty even without a guaranteed interest, provided the Government is still willing to take shares in the undertaking as it expressed its readiness to do in a letter to the Government of Bengal from the Government of India under date the 26th August 1861, and also gave facilities for acquiring land, &c., which most probably it would do. The Committee will accordingly place themselves in communication with the Government of Bengal and suggest the course already indicated.

In conclusion, I am desired to express the Committee's appreciation of the care and attention you have devoted to the subject of your reference to the Chamber, and to convey their thanks for the various papers you have been so good as to lay before them.

I am,

Sir,

Your obedient servant,

H. W. I. WOOD,

*Secretary.*

BENGAL CHAMBER OF COMMERCE,

Calcutta, 27th February 1863.

LIEUT.-COL. J. P. BEADLE,

*Secy. to the Government of Bengal,*

*Public Works Department.*

Sir,—In acknowledging the receipt of your letter No. 4255 of the 19th September 1861 on the subject of the establishment of wet docks for the port of Calcutta, I was desired by the Committee of the Chamber of Commerce to state that the positive declaration by His Excellency the Governor General in Council that a guarantee of interest could not be given, compelled them to abandon the further consideration of the question.

The subject has again however been brought under the notice of the Chamber in a series of communication from Mr. Franklin Prestage, the Acting Agent of the Eastern Bengal Railway Company, and the result of that reference is embodied in the accompanying copy of the Committee's reply.

The arrangements for the loading and discharging of vessels frequenting this port are confessedly defective, the facilities which abound in every other city for carrying on its trade are almost entirely wanting in Calcutta, and the consequent delay and inconvenience, and destruction and pilfering of property, are probably unequalled elsewhere, and it is manifest that those facilities which are urgently demanded by the yearly augmenting trade of Calcutta can only be secured by a complete change in the existing system.

Various schemes for the purpose of affording those facilities have been discussed, but none so frequently or so earnestly as the establishment of wet docks; the Chamber of Commerce have on every occasion expressed an opinion favorable to their construction, and as the project involved in Mr. Prestage's communication promises all the requirements so long desired, the Chamber see no cause to think less favorably of it now.

At the present moment there are three schemes before the public—viz., wet docks, quay wharves, and screw pile jetties: the advantages arising from either of them would be considerable, and each would materially improve the trade of the port and the general comfort and convenience of the city, but the Chamber have no hesitation in expressing their belief that wet docks would be capable of affording facilities far superior to what can possibly be afforded by the quay wharves or jetties both on account of the greater despatch which the shipping of the port would always command, and the protection and security of property. The advantage would be so decided that wet docks would be gladly resorted to by a considerable proportion of the tonnage arriving in the river provided the docks were constructed and maintained at such a reasonable outlay as would admit of the charges being fixed at a moderate sum proportioned to the saving of time which they would render possible.

The construction of a ship canal from the Mitalah to Calcutta in connection with the construction of wet docks was at first pro-

posed by Mr. Prestage, but that idea has been abandoned or the modified minor scheme of a "conduit" for supplying the docks with water. This might eventually be developed into a ship canal should the condition of the Hooghly necessitate such a measure, and the Chamber are disposed to think not unfavorably of that portion of the project.

While the Committee however are unprepared to do more than give a general approval to what Mr. Prestage has submitted, they are of opinion that the subject of wet dock accommodation should be carefully re-considered, and that the whole question should be enquired into anew; they therefore venture to bring Mr. Prestage's proposition to the favorable notice of the Hon'ble the Lieutenant-Governor, and they trust His Honor will see sufficient ground for their recommendation that a committee be appointed for that special purpose of reporting thereon.

In the communication from the Supreme Government to the Government of Bengal, dated 26th August 1861, and marginally quoted in your letter of the 19th of the following month, it was stated that the Government would, though opposed to any guarantee of profit in any form, be disposed to assist the scheme by taking shares, with the privilege of nominating a portion of the managing body and generally to render such aid as could appropriately be given.

If the Government are still of opinion that the degree of assistance which they were then disposed to give can yet be extended, the expression of such an opinion would probably enable the promoters of the scheme to raise a sufficient capital without a guaranteed interest, for the abundance of unemployed capital in England at this moment, and the greater favor with which Indian schemes are at present regarded render this an auspicious moment for placing such a project on the London market, supported as it would be by the recommendation of the Committee and the favorable opinion of the Government of India.

The Committee of the Chamber desire me to request you will be so good as to take an early opportunity of bringing this representation to the notice of His Honor the Lieutenant-Governor.

I have the honor to be, &c.,

H. W. I. WOOD,

Secretary.

No. 1976.

FROM

COLONEL E. L. OMMANNEY, R. E.,

Offg. Secy. to the Govt. of Bengal, Public Works Department.

TO

H. W. I. WOOD, Esq.,

Secy. to the Chamber of Commerce.

Port William, 25th March 1863.

Marine.

SIR,—I am instructed by the Hon'ble the Lieutenant-Governor of Bengal to acknowledge your communication of the 27th February 1863, respecting the construction of wet docks for the port of Calcutta, on a scheme advocated by Mr. Prestage, which is supported by the opinions of gentlemen of knowledge and of experience whom he has consulted.

2. The Lieutenant-Governor has no doubt whatever that capacious and properly constructed wet docks, well situated and connected with the city and railway station by a tramway, would be of great advantage to the port and to the shipping resorting to it, as well as to all interested in its trade. He also thinks that, if well managed, the establishment of wet docks should be a sound commercial enterprise, affording every chance of fair profits; and as such that it should stand upon its own merits and be treated simply as an ordinary commercial undertaking.

3. The Lieutenant-Governor is desirous of distinctly expressing his opinion that whilst every facility should be given by Government to the undertaking as one which is likely to succeed and to be very beneficial to the city and port, no step should be taken calculated directly or indirectly to give it an official or Governmental character. He cannot therefore hold out any hopes of Government becoming a partner in the concern by taking shares, or by the gift of land, or otherwise. At the same time the Lieutenant-Governor fully recognizes the undertaking as one essentially of public utility, and, under the provisions of the recent Act of the Indian Legislature, No. XXII of 1863, will support any well considered and approved project for this purpose that may be brought forward by promoters able and prepared to carry it out.

CXVI

4. The Lieutenant-Governor sees no necessity for the appointment of a committee to consider a question which has been so fully discussed and reported upon as that of wet docks for this port. There can be no reasonable doubt as to wet docks being required, and it seems probable that their construction would prove to be a sound expenditure in a commercial point of view, if the undertaking is carefully and sensibly managed. There is therefore no objection for further enquiry by the Government, or for making an advance of public money as has been proposed by Mr. Ritchie, to enable preliminary surveys and borings to be taken.

I have the honour to be,

Sir,

Your most obedient servant,

E. L. OMMANNEY, Colonel, R. E.,

Offg. Secy. to the Govt. of Bengal.

## APPENDIX O.

*Statement of the Funds of the Bengal Chamber of Commerce from 1st November 1862 to 30th April 1863.*

To Office Rent.....	900 0 0	By Balance of 31st October 1862 :—	
„ Establishment.....	4,479 0 0	„ Cash in Bank of Bengal...	2,907 13 0
„ Charges General.....	2,159 4 0	„ Government Paper.....	7,500 0 0
✓ „ Office Furniture.....	684 12 0		10,407 13 0
„ Balance :—	Rs. 8,223 0 0	„ Subscriptions.....	7,302 0 0
„ Cash in Bank of Bengal	3,417 13 0	„ Arbitration Fees.....	64 0 0
„ Government Paper .....	7,500 0 0	„ Interest for 6 months on 4 per cent. Govt. Paper for Rs. 7,500, less Income Tax.....	144 0 0
	10,917 13 0	„ Net profits of Price Current from 1st Nov. 1862 to 30th April 1863.....	1,223 0 0
Rs. ....	19,140 13 0		8,733 0 0
			Rs. .... 10,140 13 0

E. E.

H. W. I. WOOD,

Secretary.

CALCUTTA, 30th April 1863.

CXVII

Statement of the Import and Export Tonnage of the Port of Calcutta from 1st January to 31st December 1862.

For the Month of	IMPORT.										EXPORT.									
	BRITISH.		AMERICAN.		FRENCH.		ALL OTHER FOREIGN.		MONTHLY TOTAL.		BRITISH.		AMERICAN.		FRENCH.		ALL OTHER FOREIGN.		MONTHLY TOTAL.	
	Ships.	Tonnage.	Ships.	Tonnage.	Ships.	Tonnage.	Ships.	Tonnage.	Ships.	Tonnage.	Ships.	Tonnage.	Ships.	Tonnage.	Ships.	Tonnage.	Ships.	Tonnage.	Ships.	Tonnage.
January .....	62	30,722	22	10,057	12	6,010	...	...	80	65,680	62	48,073	5	4,816	4	1,962	11	6,216	82	61,067
February .....	47	42,454	14	14,994	10	4,665	1	346	72	62,330	60	44,910	8	6,491	14	6,755	5	2,614	87	60,770
March .....	36	24,054	5	3,137	4	2,123	...	...	45	29,314	58	48,848	20	18,524	10	5,012	...	...	88	72,384
April .....	62	42,314	9	7,020	12	4,630	...	...	73	54,183	30	28,068	14	15,240	13	5,637	...	...	57	48,835
May .....	61	37,570	4	2,978	11	5,075	1	316	67	45,630	30	30,117	9	7,180	7	3,600	...	...	55	40,287
June .....	50	43,169	3	2,589	6	2,381	1	337	65	48,467	49	40,021	6	4,161	15	6,881	...	...	70	51,903
July .....	82	60,260	9	7,040	14	6,306	1	933	106	83,628	45	37,000	2	1,710	7	2,917	...	...	64	41,717
August .....	38	32,654	10	9,981	15	8,028	3	2,190	66	52,863	65	46,808	9	8,406	10	4,731	1	923	85	60,958
September .....	70	48,290	6	3,346	7	3,252	3	1,465	85	67,633	76	70,612	12	10,430	16	8,040	...	...	104	80,088
October .....	80	43,187	7	6,760	8	3,005	0	4,811	113	68,700	53	27,523	4	3,147	8	4,267	...	...	43	34,937
November .....	60	38,363	3	2,535	3	1,860	1	570	66	43,234	57	42,083	7	6,620	0	3,073	...	...	70	51,735
December .....	65	64,276	17	16,533	6	3,722	1	575	91	75,900	53	38,880	6	6,140	4	2,209	4	2,135	67	49,379
Annual Total.....	697	5,17,007	108	66,879	100	52,203	21	11,533	935	6,77,028	627	5,03,012	102	92,800	114	64,470	21	11,688	864	6,63,160

Statement of the Import and Export of Bullion and Specie, valued in Rupees, from 1st January to 31st December 1862.

[illegible]

Statement showing amount of Bottons exported from Southampton to the West in the year 1892, Bank of England Returns, &c.

SUPPLIES OF GOLD AND SILVER, SELLING AND OFFICE FROM AUSTRALIA AND THE NORTHERN PORTS TO INDIA, 1862, &c.

WHEAT		GALL.																BUCKS.																RANK OF EXCHANGE RATES			
English Monetary	Quantity in Pals. Ct.	GALL.																BUCKS.																RANK OF EXCHANGE RATES			
		1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.							
1862.	100 Pals.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.							
1863.	100 Pals.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.							
1864.	100 Pals.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.							
1865.	100 Pals.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.							
1866.	100 Pals.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.							
1867.	100 Pals.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.							
1868.	100 Pals.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.							
1869.	100 Pals.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.							
1870.	100 Pals.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.							
1871.	100 Pals.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.							
1872.	100 Pals.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.							
1873.	100 Pals.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.							
1874.	100 Pals.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.							
1875.	100 Pals.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.							
1876.	100 Pals.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.							
1877.	100 Pals.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.							
1878.	100 Pals.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.							
1879.	100 Pals.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.							
1880.	100 Pals.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.							
1881.	100 Pals.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.							
1882.	100 Pals.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.							
1883.	100 Pals.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.							
1884.	100 Pals.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.							
1885.	100 Pals.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.							
1886.	100 Pals.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.							
1887.	100 Pals.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.							
1888.	100 Pals.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.							
1889.	100 Pals.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.							
1890.	100 Pals.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.							
1891.	100 Pals.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.							
1892.	100 Pals.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.							
1893.	100 Pals.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.							
1894.	100 Pals.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.							
1895.	100 Pals.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.							
1896.	100 Pals.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.							
1897.	100 Pals.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.							
1898.	100 Pals.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.							
1899.	100 Pals.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.							
1900.	100 Pals.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.							
1901.	100 Pals.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.							
1902.	100 Pals.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.							
1903.	100 Pals.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.</																				

Statement exhibiting the Assets and Liabilities of the Bank of Bengal, Bank rates of interest and discount, the value of Government Securities, and the Exchange on London and China for the year 1862.

[illegible]

\* Date of Digital (Geo) Cataloging: 11/18/2008

It's easier up to 2540 May and egg double to life not possible.

$$- \frac{1}{2} \frac{d}{dt} \left( \frac{1}{\rho} \right) = \frac{1}{2} \frac{d}{dt} \left( \frac{1}{\rho} \right) = \frac{1}{2} \frac{d}{dt} \left( \frac{1}{\rho} \right)$$

77	232	10%	SiO <sub>2</sub>
----	-----	-----	------------------

DOI: 10.1002/for

## ARRIVALS.

## OVERLAND MAILS FOR 1862

## DEPARTURES

[illegible]

\* The London mail six Missillon postponed 2 days, going to the break down of the C&N

with the snails via 8-orthoxanthine.

<sup>†</sup> The London mail of 20th December delayed 13 days, in consequence of the late arrival for Indian mails per Calcutta-arrived.

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

: Bracted Eucalyptus 125; *Entropia* 100

1. Elton's research was sponsored by the National Science Foundation, grant number 100-10000.

of the European Union.



Statement of Cash Balances in Government Treasuries in India for 1862-63.

	31st May 1862.	30th June.	31st July.	31st August.	30th Sept.	31st Oct.	30th Nov.	31st Dec.	31st January 1863.	28th Feb.	31st March.	30th April.*
Government of India .....	5,54,45,087	5,84,58,420	5,84,55,104	5,69,64,038	5,64,63,038	5,70,32,069	5,57,54,442	5,88,16,905	5,89,42,000	6,10,16,838	4,40,67,617	
" Bengal .....	1,80,05,302	2,05,26,780	1,99,10,363	1,84,07,869	2,00,23,961	1,83,20,927	1,75,31,717	1,84,70,464	2,10,51,231	1,80,91,073	2,25,05,766	
" N. W. Provinces .....	3,00,73,093	3,28,03,956	3,27,21,090	3,01,85,920	2,70,83,912	2,45,98,706	3,13,54,846	3,47,11,072	3,63,37,772	3,36,12,414	2,85,57,760	
" Punjab .....	80,39,568	1,12,15,207	1,33,12,398	1,27,15,988	1,07,09,992	86,04,561	92,29,387	1,18,46,313	1,12,80,211	1,20,45,852	1,20,29,640	
" Madras .....	3,15,03,703	3,07,32,465	2,91,45,114	2,65,08,697	2,40,88,692	2,14,08,856	2,08,64,396	2,27,68,473	2,50,27,924	2,83,00,475	3,50,06,792	
" Bombay .....	3,32,58,625	3,43,08,538	3,30,02,918	3,02,83,679	2,78,11,929	2,39,22,400	2,52,23,657	3,06,51,204	3,70,65,024	3,55,19,032	3,38,91,292	
" Central Provinces .....	58,90,592	61,09,787	60,05,576	55,32,754	50,53,178	43,71,996	45,15,845	46,43,044	47,97,792	47,59,004	42,95,036	
" Decan .....	25,11,067	23,90,049	19,27,484	16,24,632	13,76,951	12,39,554	10,15,912	14,29,805	20,65,198	30,78,351	36,57,482	
Total .....	18,46,27,067	19,05,05,202	18,43,19,349	18,22,22,607	17,20,64,583	15,94,99,372	16,84,89,802	18,33,36,340	19,74,67,152	19,54,83,989	18,50,41,385	

Statement of Receipts from Income Tax and Stamp Duty from 1st May 1862 to 31st January 1863.

	INCOME TAX.				STAMP DUTY.			
	1st May to 31st July 1862.	1st August to 31st October 1862.	1st Nov. to 31st January 1863.	1st Feb. to 30th April 1863.*	1st May to 31st July 1862.	1st August to 31st October 1862.	1st Nov. to 31st January 1863.	1st Feb. to 30th April 1863.*
Government of India .....	3,13,846	2,31,874	3,10,511	.....	.....	.....	.....	.....
" Bengal .....	21,27,692	14,60,936	14,12,915	14,89,325	12,02,086	14,35,842		
" N. W. Provinces .....	13,01,769	6,86,250	6,93,752	5,62,356	5,72,570	6,02,127		
" Punjab .....	3,17,253	2,15,314	92,904	2,49,436	2,10,690	2,23,919		
" Madras .....	8,13,853	5,32,750	4,04,688	4,71,965	5,37,832	5,54,654		
" Bombay .....	15,14,456	6,06,921	7,00,612	7,48,243	6,87,516	8,13,253		
" Central Provinces .....	1,24,976	87,908	82,242	89,429	1,00,038	92,768		
" Decan .....	4,800	7,125	6,988	15,000	14,473	16,465		
Total .....	65,18,635	39,38,168	37,04,612	36,25,754	33,25,414	37,39,028		
Average per mensem Co.'s Rs. ....	21,72,878	13,12,722	12,34,870	12,08,584	11,08,471	12,46,342		

\* Returns of Cash Balances for April 1863, and of Income Tax and Stamp Duty Receipts for the quarter ended 30th April have not yet been published.

MEMBERS OF THE CHAMBER OF COMMERCE.

Agabeg, Joseph.	Janssen, J. and Co.
Anderson, W., Agent, Oriental Bank Corporation.	Kathodewill, Bullen and Co.
Apear and Co.	Kelly and Co.
Argenti, Secchiari and Co.	Kor, Dods and Co.
Atkinson, Tilton and Co.	Lally, Rennie and Co.
Begg, Dunlop and Co.	Lewis, Batley and Co.
Balfour and Co.	Mackillop, Stewart and Co.
Bornuville, John and Co.	Mackinnon, Mackenzie and Co.
Bradford, H. E.	Mackenzie, Lally and Co.
Camin, H. and Lamoroux.	Mackay and Co.
Carleton, Nephews and Co.	Maciver, M., Manager, Central Bank of Western India.
Clinker, D. B., Agent Commercial Bank of India.	MacLachlan, J. E.
Colvin, Corrie and Co.	Mair and Co.
Crooke, Rome and Co.	May, Pickford and Co.
DeSouza, Thos. and Co.	Moran, W. and Co.
Dickinson Brothers and Co.	Mosley and Hurst.
Duff, Thos., Agent Borneo Company.	Mohendranath Bese.
Dunsmuir, Grob and Co.	Ogle, John and Co.
Ernsthausen and Oesterley.	Pearce, Macrae and Co.
Ewing and Co.	Peel, Dollans and Co.
Elliot, John and Co.	Remington and Co.
Ferguson, J. H.	Tehmoller, G. and Co's Successors.
Fitzwilliam, W. S., The Honorable, Agent Chartered Mercantile Bank.	Pereira and Co.
Foster, Rogers and Co.	Pietech, G., Manager Comptoir D'Escompte de Paris.
Forrester, Chas.	Playfair, Duncan and Co.
Gillanders, Archibald and Co.	Potter and Co.
Gishorne and Co.	Prestwich, E.
Gladstone, Wyllie and Co.	Petrovich, E. E. and Co.
Graf and Banziger.	Ream, Gopal Goss and Co.
Gordon, Stuart and Co.	Robert and Charriol.
Grindley and Co.	Schulze and Co.
Grant, Smith and Co.	Schneider, J. P.
Henderson and Co.	Schnee, Kilburn and Co.
Henderson, George and Co.	Shand, Forrie and Co.
Heron and Co.	Shan Chaudh Mitter.
Hoare, Miller and Co.	Stewart, W. G. and Co.
Hewitt, A. F., Agent Chartered Bank of India.	Thomas, H. and Co.
Jardine, Skinner and Co.	Wattenbach, Heiglers and Co.
Jenkins, Dearman and Co.	Williamson, Brothers and Co.
Johnson, P.	Whitney, Brothers and Co.
	Wiseman, Smed and Co.

MEMBERS.

Bocher, Wm.—Gochetty, Assam.	Hay, J. O. and Co.—Akyah.
Deverell, H.—Acherunge.	Howard Brothers—Mirapore.
Cope, H. and Co.—Umrissar.	Kenny, J. T.—Solanpoediah.
Cole, John.—Dumond.	Todd, Findlay & Co.—Moulmein.
Hamilton, Brown & Co.—Mirapore.	

## RULES AND REGULATIONS

OF THE

### BENGAL CHAMBER OF COMMERCE.

*First*..... That the Society shall be styled "THE BENGAL CHAMBER OF COMMERCE."

*Second*..... That the object of the Chamber shall be to watch over and protect the general interests of Commerce; to collect information on all matters of interest to the Mercantile Community; to use every means within its power for the removal of evils, the redress of grievances, and the promotion of the common good; to communicate with authorities and individual parties thereupon; to form a code of practice whereby the transaction of business may be simplified and facilitated; to receive references and to arbitrate between disputants, the decisions in such references being recorded for future guidance.

*Third*..... That it being highly desirable not to recognize any principle of exclusion, all persons engaged or interested in the Commerce or Shipping of Bengal, shall upon payment of the Subscription and on signature of the Rules and Regulations, be admissible as Members in the manner hereinafter described.

*Fourth*..... That Candidates for admission, proposed and seconded by Members, may be admitted provisionally as Members by the Committee, subject to confirmation at the next General Meeting.

cxxxvii

*Fifth*..... That voting by proxy, or by Members whose Subscriptions are in arrears, be not allowed.

*Sixth*..... That the Chamber reserves to itself the right of expelling any of its Members; such expulsion to be decided by the votes of three-fourths of the Members of the Chamber.

*Seventh*..... That any number of Members present shall be held to constitute a General Meeting, called in conformity with the Rules of the Chamber, for the despatch of ordinary business; but that no change in the Rules of the Society can be considered except at a General Meeting at which the majority of the Members of the Chamber shall be present.

*Eighth*.... That the Subscription for individual Members of the Chamber be 10 Rupees per mensem, while those alone carrying on business under any style or firm do pay 16 Rupees per mensem.

That the Subscription for Mofussil Members be two Gold Mohurs or 32 Rupees per annum.

*Ninth*..... That the business and funds of the Chamber shall be managed by a Committee of seven Members, consisting of a President and Vice-President and five Members, to be elected annually at a General Meeting of the Chamber in the month of May; the President, or, in his absence, the Vice-President, being ex-officio Chairman of the Committee, and in the absence of the President and Vice-President, the Committee to elect its own Chairman. Four to form a quorum; the Chairman, in cases of equality, having the casting vote.

*Tenth* ..... That the Committee shall meet on such day of every week as it may fix as most convenient, for the purpose of transacting such business as may come within the limits of the objects of the Chamber, and that its proceedings be laid on the table open to the inspection of Members, subject to such Regulations as the Committee may deem expedient.

*Eleventh*..... All annual elections of President, Vice-President, and Members of the Committee shall be determined by a majority of votes of Members, such votes being given in voting cards to be issued numbered and signed by the Secretary; and no voting card shall be received for such purpose unless so authenticated: and all vacancies created by the absence of the President, Vice-President, or any of the Members from the Presidency for two months, or by departure for Europe, or by death, shall be forthwith filled up, and the election determined by votes of Members to be taken as above in voting cards and declared by the Committee.

*Twelfth* ... That the Secretary be elected by the Committee; such election to be subject to confirmation at the next ensuing General Meeting.

*Thirteenth.* That the General Meetings of the Chamber be held from time to time as the Committee for the time being may deem necessary. That a Special General Meeting shall be called by the President, or, in his absence, by the Vice-President, or by his order on the requisition of any five firms, Members of the Chamber,

to be held within five days subsequent to the receipt of such requisition.

*Fourteenth.* That all Proceedings of the Committee be subject to approval or otherwise of General Meetings duly convened.

*Fifteenth*... That strangers visiting the Presidency may be introduced as Honorary Members for two months by any Member of the Chamber inserting their names in a book to be kept for that purpose.

*Sixteenth*... That the Committee be empowered to make Bye-laws which shall not be of any force until approved of by a General Meeting.

*Seventeenth.* That an Annual Report of the Proceedings be prepared: and, after being approved of at a General Meeting, printed and circulated.

*Eighteenth.* That the above Rules be added to or altered only by a majority of Members of the Chamber.

*Nineteenth.* That the foregoing Rules be printed, and an authenticated copy, subscribed by each Member on admission, be kept as part of the records of the Chamber. That printed copies be forwarded to Members of the Chamber, to the Secretary to Government, and to such other parties or authorities as it may be desirable to make acquainted with the objects and Rules of the Association.









