

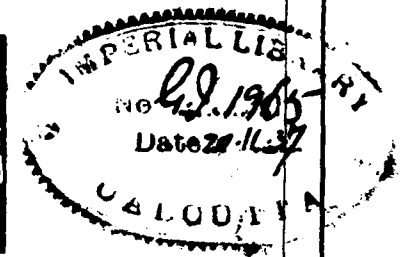
INDIAN TARIFF BOARD

EVIDENCE

Recorded during enquiry regarding the
GRANT OF PROTECTION

TO THE

PLY WOOD AND TEA CHEST
INDUSTRY



CALCUTTA: GOVERNMENT OF INDIA -
CENTRAL PUBLICATION BRANCH
1928

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*Resolution No. 483-T., dated the 26th May 1927, of the Government of India,
Department of Commerce.*

The Assam Saw Mills and Timber Company, Limited, and the Assam Railways and Trading Company, Limited, have requested the Government of India to refer to the Tariff Board for enquiry the question whether the ply wood and tea chest industry in India should be protected.

2. There was no import duty on tea chests and lead sheets for tea chests until 1916. A duty of 2½ per cent. was imposed in 1916 for revenue purposes, and this was raised in 1923 to the general rate of 15 per cent. It was then recognized that this increase of duty would incidentally assist the manufacture of tea chests in India, but an assurance was given by the Hon'ble the Commerce Member in the Legislative Assembly that an increase of duty would not have been proposed for protective purposes without a previous investigation by the Tariff Board.

3. Imported tea chests and lead sheets for tea chests are ordinarily re-exported as containers for Indian tea and are then entitled to a refund of seven-eighths of the import duty under Chapter VI of the Sea Customs Act, provided that they are identified to the satisfaction of the Collector of Customs, and that the re-export is made within two years from the date of importation. Such identification may sometimes be possible, but would cause much trouble and delay both to the Customs administration and to the re-exporter. In view of the special circumstance that tea chests and lead sheets for tea chests are ordinarily imported for the purpose of subsequent re-export, the continuance of a revenue duty may be open to objection.

4. The Government of India have therefore decided to refer the following questions to the Tariff Board:—

- (1) Whether, having regard to the principles laid down in the resolution adopted by the Legislative Assembly on the 16th February 1923, the ply wood and tea chests industry should be protected:
- (2) If so, in what form and for what period protection should be given.
- (3) If not, whether, in view of the fact that tea chests and lead sheets for tea chests are ordinarily imported for the purpose of re-export, the existing import duty of 15 per cent. should be continued.

5. Firms and persons interested, who desire that their views should be considered by the Tariff Board, should address their representations to the Secretary, Tariff Board, Shillong, before the 15th June 1927.

ORDER.—Ordered that a copy of the above resolution be communicated to all Local Governments and Administrations, all Departments of the Government of India, the Director General of Commercial Intelligence and Statistics, the Indian Trade Commissioner in London, the Central Board of Revenue, and to the Secretary, Tariff Board.

Ordered also that it be published in the *Gazette of India*.

Press Communiqué issued by the Tariff Board on the 27th July 1927.

The Government of India has directed the Indian Tariff Board to investigate the question of granting protection to the ply wood and tea chest industry in India. The Board has issued questionnaires in this connection to the manufacturers in India of ply wood and tea chests, to the importers of these articles, and to the Indian Tea Association and proposes to hear the oral evidence of persons or firms interested in Calcutta, during the month of August. Any persons or firms not receiving copies of the questionnaires but who may wish to send in representations to, or to give oral evidence before, the Board, are invited to send such representations and to signify their desire to give oral evidence to the Secretary, Tariff Board, at No. 1, Council House Street, Calcutta, before the 10th August next.

Questionnaire for the manufacturers of ply wood and tea chests issued by the Tariff Board on the 27th July 1927.

General.

1. When was your ply wood factory established and when did it actually commence work?
2. Does your firm manufacture ply board merely for use in the construction of tea chests in your factory or for other purposes also?
3. If the manufacture of ply board is not confined to that required for tea chests for what other purposes is it produced and in what form is it sold?
4. What is the full capacity of your factory as at present equipped for the manufacture of—
 - (a) 3-ply board.
 - (b) Tea chests.
 - (c) 5-ply board.
5. What has been the actual output of your mill since manufacture commenced of—
 - (a) 3-ply board.
 - (b) Tea chests.
 - (c) 5-ply board.
6. Please state the sizes of the different tea chests manufactured by you and the total three-ply board (in square feet) contained in each.

Capital Account.

7. What is the block value of your property as stood in your books at the end of the last complete year for which figures are available, under the following heads:—
 - (a) Leases and concessions;
 - (b) Lands;
 - (c) Buildings;
 - (d) Plant and machinery;
 - (e) Other miscellaneous assets?
8. Do the figures given in answer to Question No. 7 represent the actual cost of the various assets, or their value after depreciation has been written off? In the latter case, please state the total amount written off for depreciation since manufacture commenced, and in the former case the total of the depreciation fund (if any) which has been accumulated?

9. Apart from any question of an increase in the replacement cost of plant and machinery due to a general rise in the price level, are the sums actually set aside for depreciation since manufacture commenced equal to, greater than, or less than, the sums which ought to have been set aside according to the rates of depreciation which you consider suitable?

10. What do you estimate would be the present-day cost under the heads (a) buildings and (b) plant and machinery, of erecting a factory having the same output as your present factory? How does the figure compare with the block value of your present factory under the same heads, and would the operating cost of a new factory established now be greater or smaller than yours?

11. Give brief particulars of the sums spent on plant and machinery since the initiation of the factory and the rate of exchange at which funds were remitted. From what country were the plant and machinery obtained?

Working Capital.

12. What is the working capital which the Company requires—

- (i) according to its present output, and
- (ii) according to the output equivalent to its full capacity?

13. Is the Company able to provide all the working capital it requires from share and debenture capital, or is it necessary to borrow additional capital for this purpose?

14. If additional working capital has to be borrowed, what is the amount borrowed and the rate of interest payable?

15. Compare the working capital with the cost of one month's output (works cost only, excluding overhead charges).

16. What is the average value of the stocks of finished goods held by the Company? What period normally elapses between production and payment?

17. Do the Company find it necessary to hold large stocks of coal or raw materials? If so, the average value of the stocks held should be stated.

Agents' Commission.

18. (a) Has the Company a head office other than the office of the local management? (b) Is it under the control of a firm of Managing Agents?

19. If the answer to (a) is in the affirmative, state:—

- (i) the annual amount of the head office expenses.
- (ii) the Agents' Commission.

20. How is the amount of the Agents' commission determined?

Manufacturer's profits.

21. What rate of dividend do you consider a fair return for ordinary shareholders in a ply wood factory? State reasons for your reply.

Works cost.

22. Please give the average works cost in 1926-27 and in each of the preceding three years per square foot (or other convenient unit) of 3-ply board under the following heads:—

Timber.

Glue.

Power and fuel.

Labour.

Supervision.

Renewals and repairs.

Miscellaneous (if any).

23. Please give the average works costs in 1926-27 and in each of the preceding three years of a 3-ply tea chest measuring 19" x 19" x 24" under the following heads:—

Timber.

Glue.

Power and fuel.

Labour.

Supervision.

Renewals and repairs.

Fittings.

Lining.

Nails.

Grease-proof paper.

Stores.

Packing, etc.

Miscellaneous (if any).

24. Please state for the year 1926-27 the difference in the above items of cost of—

(a) 3-ply chests of other sizes.

(b) 5-ply opium chests.

Market.

25. Please state the price f.o.r. works in 1926-27 and in each of the preceding three years of—

(1) 3-ply tea chests of standard sizes.

(2) 3-ply board other than tea chests.

26. Please state the principal up-country markets for tea chests and the freight for tea chests of standard sizes to each of such markets from—

- (a) your factory,
- (b) Calcutta.

27. Please state the chief markets for ply board (other than in the form of tea chests) and the freight per square foot (or other convenient unit) of ply board to each of such markets from—

- (a) your factory,
- (b) Calcutta.

28. Do you dispose of your ^{tea chests}_{3-ply board} through agents? If so, please state the rate of commission paid to them.

Equipment.

29. Do you consider that your mill is sufficiently large as an economic unit of production to ensure economy? What in your opinion is the smallest unit of production which can be operated economically under present-day conditions?

30. What percentage of your total capital outlay has been incurred on plant and machinery?

31. Give a brief description of your plant and machinery, stating the number and makes of the principal machines operated, and the dates on which they were first brought into use.

32. Do you consider your machinery and other equipment sufficiently up-to-date and efficient to enable you to compete successfully against the foreign manufacturer?

33. Do you contemplate either:—

- (a) any important replacement of the existing plant in your mill, or
- (b) any extension of the plant by the addition of new machinery?

If so, please give particulars.

Foreign Competition.

34. From what countries is foreign competition most severe in respect of—

- (a) tea chests,
- (b) ply wood board.

35. Please state for the last three years—

- (1) (a) The c.i.f. price of imported tea chests 19" x 19" x 24" and other standard sizes at Calcutta.
- (b) Landing charges per unit.
- (c) Duty charges per unit.

- (2) (a) The c.i.f. price of imported ply board of standard sizes per square foot (or other convenient unit) at Calcutta.

- (b) Landing charges per unit.
- (c) Duty per unit.

36. It is alleged that the price of the imported tea chest has been cut in order to drive the Indian industry off the market. Please state what evidence you can produce in support of this statement.

37. Have you any reason to suppose that the price of ply board other than chests imported into India has also been reduced with the same object in view? If so, please state any facts in your possession in support of this view.

38. What is the general rate of commission allowed to importers of—

- (a) tea chests,
- (b) ply board.

39. Do the market quotations of (a) tea chests, (b) ply board fairly represent the prices charged? Have you any reason to suppose that special discounts are offered?

The Assam Saw Mills and Timber Company, Limited.

A.—WRITTEN.

(1) *Representation, dated the 8th December 1926, to the Government of India.*

We have the honour to address you on the subject of the present position of the Tea Chests Industry of Assam.

2. The industry is one which India requires and ought to encourage and it possesses all the qualifications laid down under the Fiscal Commission's Report.

- (1) There is an abundant supply of raw materials, cheap power and a large home market.
- (2) The industry cannot develop at the present time or even continue to exist without the help of protection, on account of acute foreign competition.
- (3) Once firmly established the industry will be able to exist without assistance.

3. At the present time there is an import duty of 15 per cent. on tea boxes, but this protection is nullified because importers are in a position to claim a refund of $\frac{1}{4}$ ths of the duty when the chests are exported with tea.

4. The box manufactured at our mills is in every way satisfactory to the trade and can be produced at a profit at normal selling prices, but there are interests which have reduced the prices last year and again this year below a possible profit making rate.

5. Once the mills are firmly established and it is understood that India does not intend to lose the advantages which she can secure for her forests, labour and tea gardens by means of local manufacture, we are confident that those interested at present in cutting rates will be content to allow our mills to continue to exist.

6. As an alternative to a protective duty we offer the suggestion that the Government of India should remit the export duty, namely Re. 1-8-0 per 100 lbs. on tea packed in chests which have been manufactured in India from Indian timber. Under this arrangement our mills would not obtain any direct monetary assistance from the rebate, but would be placed in a position to sell all their output.

7. We enclose a note giving a short account of the tea box industry and containing general information on the subject with special reference to our mills.

8. As the matter is of very great and immediate importance to the Assam Saw Mills and Timber Company, we have the honour to request that the Government of India may be pleased to refer it at an early date for enquiry by the Tariff Board.

THE TEA BOX INDUSTRY IN INDIA.

1. *Origin and history of country shook boxes.*

For many years after the Tea industry had been established in India, the boxes used for packing tea were supplied from timber grown on or near to the tea gardens. The box was a crude affair, made by hand sawyers and consisted of shooks $\frac{1}{2}$ " thick. These sawyers were to a large extent, though not entirely, supplanted by Saw mills which in course of time were so successful that in Assam alone there were at one time 12 mills capable of producing

some 12 lakhs of boxes. The situation and present position of these mills is shown as follows:—

- Hopewell at Dehingmukh closed for lack of orders.
- Tezpur at Tezpur closed for lack of orders.
- Sissi at Sissi burnt, not rebuilt for lack of orders.
- Meckla at Laimakurie manufacturing packing timber for Calcutta market and a few tea boxes.
- Bordutti at Badati manufacturing packing timber for Calcutta market and a few tea boxes.
- Ghooroonia near Dibrugarh closed for lack of orders.
- Halkutta near Dibrugarh manufacturing a few boxes.
- Furkating at Furkating closed for lack of orders.
- Bordeobam at Bordeobam. A mill belonging to a tea garden, produced a few boxes but now closed.
- Lakhipore at Lakhipore closed for lack of orders.
- Saikwa at Saikwa demolished for lack of orders.
- Surma at Bhanga closed for lack of orders.

In the early days, therefore, the requirements of the tea industry were entirely supplied locally.

So late as 1912, on the evidence of the Inspector-General of Forests (see notes of inspection on some of the forests of Assam, G. F. Beadon Bryant, Esq., C.S.I., dated 22nd April 1912), 73 per cent. of the tea industry's requirements in Assam were supplied by locally made country shook chests.

During the war all these mills were working to their full capacity and the demand for country shook boxes was so great that the Surma Saw Mills, for instance, were asked by the Controller of Munitions to increase their output from 1 lakh to 3 lakhs of boxes. To-day it is doubtful if these 12 mills can sell 150,000 boxes and in the very near future we do not think there will be any demand at all for a box of this type.

This one time flourishing industry has been supplanted by the 3-ply veneer box.

The following figures of timber extracted and royalty paid by the Assam Saw Mills and Timber Company, Limited, and the Surma Valley Saw Mills, Limited, will show how the industry has been dying from 1920 to 1926.

Assam Saw Mills and Timber Company, Limited.

Year.	For 3-ply chests.	For $\frac{1}{2}$ " shook country chests.	Planks and packing cases.	Value in royalty.	
	cubic feet.	cubic feet.	cubic feet.	Rs.	A. P.
1920	...	1,440,578	..	45,018	0 0
1921	...	815,744	...	25,492	0 0
1922	55,217	1,491,983	...	48,350	0 0
1923	231,460	1,105,581	57,391	43,576	0 0
1924	293,360	988,256	778,864	64,390	0 0
1925	296,050	323,165	441,265	33,172	0 0
1926 estimated	275,000	150,000	675,000	37,500	0 0

NOTE.—With a veneer factory turning out 5 lakhs 3-ply chests and saw mills producing 7,000 tons of softwood packing cases and planks, the amount of timber required annually would be approximately 1,400,000 cubic feet, the royalty on which would amount to Rs. 80,468.

Surma Valley Saw Mills Limited.

Year.	Timber extracted.	Value in royalty.
	cubic feet.	Rs.
1920	348,000	11,418
1921	380,000	19,046
1922	342,000	21,937
1923	13,000	1,268
1924	114,000	3,885
1925	233,000	12,267
1926 estimated	nil	nil

2. Reasons for the economic advantages of the 3-ply chest.

Figures showing the enormous increase in the imports of 3-ply chests during the last few years are given in the next paragraph and it is worth while relating some of the reasons for their popularity and almost general use.

(A) The standard large size chest carrying about 115 lbs. of tea weighs empty 18 lbs.; whereas a country shook chest weighs 28 lbs., this was not a serious matter a few years ago but now the steamer and railway companies are charging freight on gross weight, whereas before freight was paid on cubic capacity.

(B) In a country shook chest which was not made of really seasoned wood, a 4 oz. lead lining was found to be necessary; in a 3-ply chest a 2 oz. or a 2½ oz. lead lining or an aluminium lining is suitable which shows a large saving in the cost of this important part of the box.

N.B.—A 4 oz. lead lining is one which weighs 4 oz. to the square foot.

(C) Owing to the timber in a shook box being ½" thick as against a 3-ply panel of ¾" thick, 9 per cent. more shook boxes of standard size are required to pack any given quantity of tea, as box sizes are taken on outside measurement.

(D) The price of the 3-ply box has fallen from war prices of Rs. 10 to about Rs. 3-7-0 at the current time due to the following reasons:—

- (1) The depreciated exchange in Russia and other Northern European countries.
- (2) The high rate of Indian exchange during the last two years.
- (3) Increasing supplies and competition.
- (4) The fall in the prices of aluminium linings.
- (5) The low cost of outward freight; it is worthy of note that the cost of freight of a complete tea box from London to Sylhet is no higher than the cost by river steamer or railway from Upper Assam to Sylhet.

3. History of 3-ply veneer boxes.

As the tea trade developed, so the demand for tea boxes increased and was met by the imported 3-ply chest; the number and value of boxes imported before the war, as far as we have been able to obtain them, were as follows:—

Year.	Value. Rs.
1906-07	23,57,108
1911-12	44,72,998
1913-14	52,09,470
1918-19	91,00,000
1923-24	63,00,000
1924-25	91,00,000
1925-26	84,44,745
1923-24 (value of ply wood chest sold by this Company)	9,64,411
1924-25 (value of ply wood chests sold by this Company)	8,41,824
1925-26	9,16,614

The panels and battens of these chests are mostly manufactured in Russia and other Northern countries of Europe, shipped to England, repacked with the necessary fittings and linings and re-shipped from that country; some are shipped direct from the country of origin.

4. The origin of 3-ply boxes manufactured in India.

The difficulty of obtaining supplies of suitable tea boxes was so acute in 1917 that the Surma Valley Saw Mills were requested by the Munitions Board to increase the output of boxes and a first class certificate of priority was given to obtain the necessary plant for an up-to-date veneer plant. Imported veneer boxes were then costing about Rs. 10 per box and the Japanese Momi ½" plank box about Rs. 7 complete. At a meeting at Government House, Shillong, on June 27th, 1917, called to discuss the question, the Chief Commissioner said "In the first place this tea box industry should be looked upon as a war contribution. Apart from this it was of the utmost importance to the Province that it should supply its own tea boxes and not depend upon foreign sources of supply such as Russia and Japan. The profit from royalty was but a small proportion of the total gain to the province from the establishment of a large industry". Hence it was that the Surma Valley Saw Mills under the management of Messrs. Bird & Co., Calcutta, became the pioneers of the veneer wood industry in Assam, their timber lease being made dependent upon the erection of a veneer factory.

In the following year the Assam Saw Mills and Timber Company, Limited, came into existence and were granted a 30 years lease to extract timber from the North East Frontier Tracts, one of the terms of this lease being that a veneer plant was to be erected within two years. About this time the Buxa Timber and Trading Company, Limited, managed by Messrs. Davenport and Company came into being and erected a veneer plant in the Dooars District.

The Surma Valley Saw Mills Company, Limited, and the Buxa Timber and Trading Company, Limited, both met with failure and closed down. We deal with their history later. The present signatory Company succeeded in producing first class 3-ply veneer boxes, where its competitors failed.

This Company first started serious operations in the year 1923 and since that time have sold nearly one million chests without a serious complaint of

any sort which goes to prove that the quality of this product is satisfactory in every way. In addition we may add that our 2 largest contracts totalling over 1½ lakhs of chests has just been repeated for the third year in succession. Invoices of these chests can of course be seen in the Calcutta or London Warehouses at any time.

5. Advantages of establishing the Industry in India.

The general advantages of establishing the Industry in India were very well put by the Chief Commissioner of Assam at the abovementioned meeting. The particular advantage of a sound saw-mill industry at a time of national emergency was amply illustrated by the various demands made by the Government of India during the war; for instance the Mills were pressed to supply timber for the Ordnance Factories and Munitions Board in addition to largely increasing the output of tea boxes; the situation was so serious at one time that the Inspector General of Forests wrote to the Conservator of Forests, Western Circle, Assam, on the 16th of January 1916, to the following effect:—

“With the approval of the Government of India I am writing to tell you that the position has now reached an acute stage; so acute indeed that the Director General of Military Works in Simla classes it as a grave national emergency. . . . it seems certain that it will be necessary to ship monthly to Mesopotamia, Egypt and Salonica some 9 lakhs of cubic feet of timber and that any shortage in this supply will be a matter of great embarrassment to the conduct of military operations.”

Further the mills were pressed forward to erect veneer factories to supply veneer chests and also plywood for aeroplane construction. For instance, the Conservator of Forests, Western Circle, wrote to the Manager of the Surma Valley Saw Mills, Limited, on 22nd July 1916—

“I have the honour to bring to your notice that the prohibition against the importation into the United Kingdom of Beech and Birch Timbers that are largely used in the manufacture of patent tea chests, is likely to affect the import of these chests from the United Kingdom into India and thus affords an opportunity to the saw mills in India to expand the manufacture of tea chests in order to meet the shortage in imported chests.”

These were the circumstances under which the first mill was erected.

6. The natural advantages of the indigenous Tea Box Industry.

In claiming that there is an ample supply of timber for tea boxes in India, we speak from our experience in Assam only; we have at present by us only one report by the Forest Department indicating the amount of Hollock timber (*Terminalia myriocarpa*) available for extraction for veneering purposes. This is the report on the Enumeration Survey of the Sadiya Forest Division No. A-114, dated 18th August 1922. From this report we calculate that omitting 4th class areas entirely, the amount of hollock available is 99,300,000 cubic feet. Hollock matures in 50—60 years, and using this timber alone, we find we require about 1½ cubic feet per box, which is more than it should be owing to the cross-grain frequently found in this timber, which results in perforated or rough single plies.

Assuming that all this hollock is extractable, there would be sufficient supply for 11 to 13 lakhs of pure hollock boxes per annum from these areas alone, until such a time as fresh planted hollock matured. Hitherto all our boxes have been made of this timber.

In addition to hollock there are very large quantities of Simul timber (*Bombax Malabaricum*) available but no enumeration has ever been attempted; the Shook Box Mills for many years supplied lakhs of boxes made from Simul timber which was in great demand by tea planters and found to be

most suitable for carrying tea. We calculate that on an average, over a large number of years, 8 lakhs of boxes were produced annually, which would require more than 16 lakhs cubic timber in the log. Of these more than 5 lakhs of boxes, requiring over 10 lakhs of timber were produced by the mills situated in Lakhimpur alone.

Simul grows to maturity in 20 years and some of the areas replanted by the Forest Department some 10—15 years ago are already showing great promise. From time to time in the past the shook box mills complained of a shortage of timber; they were complaining over 14—15 years ago but we still find no insurmountable difficulty in obtaining simul timber and are advised by our Forest Assistants that in 3—5 years the position will become easier, owing to the Forest Department's action in the past. In view of the above facts, we have decided after many months of experimental work to introduce gradually a tea box manufactured of simul timber with a hardwood hollock centre which makes a most excellent box and should only require 1 cubic feet of timber. The advantage of establishing an industry based on a timber which matures in so short a time is obvious. Taking the supplies of hollock and simul together in the proportion of one-third to two-thirds, we see no reason why the Brahmaputra Valley should not ultimately supply without difficulty 15 lakhs of boxes or one-half of the requirements of the Tea trade. Any further development in Upper Assam will depend upon the re-afforestation policy of the Government.

In addition to the areas under review, there are the areas utilised by the veneer plant of the Assam Railway and Trading Company and those previously used by the Buxa Timber and Trading Company and there are also areas in Burma, Southern India and the Andamans which should be capable of supplying tea box timbers.

7. Assistance required from the Forest Department in respect of timber supplies.

The evergreen forests of Assam have hitherto of such small commercial value that the Forest Department have not been justified in spending a large amount of money in the enumeration and rejuvenation of forests. A greater knowledge of the resources available would be of much assistance in the development of the industry. This was brought to notice in 1912 by Mr. Bryant, the then Inspector General of Forests, in his note of inspection on some of the forests of Assam, section 23, sub-paragraph 1. The Enumeration Survey of the Sadiya Forest Division, A-114 of 18th August 1922, is an example of the value of such work. This latter report deals with Hollock forests which are for the most part pure forests and easier of enumeration than simul which grows in more scattered areas. If the assistance which is asked for from the Tariff Board is granted, it will be most desirable that an estimate of simul in the various areas be made; at the present moment we rely mainly on our Forest Assistants for our reports and owing to lack of funds and pressure of work they have been unable to look many years ahead.

That there are very large areas of simul available we are quite confident; it is true that so long ago as 1912, the Managers of Meekla and Sissi Mills were complaining of a shortage of simul timber; for instance Mr. A. J. Harrison of Meekla Mills stated that in 1904 he could obtain his supplies from within 10 miles of his mills while in 1912 he had to go 50 miles to obtain his requirements; further he stated that he was of opinion that within 5 years it would be practically impossible to obtain his supplies “within a working figure of costs”. Therein lies the crux of the situation. To make a country shook box 2 cubic feet or more of timber was required whereas a 3-ply box consumes 1½ cubic feet only (we have had results down to .85 of a cubic foot), and it is therefore possible in manufacturing 3-ply boxes to work further afield within an economic cost. Moreover Mr. Harrison then stated that there was “any quantity of immature simul regeneration along the north bank of the Brahmaputra in the grass lands, which only required protection to allow it to grow into mature trees” and the areas from which Mr. Harrison was obtaining his supplies in 1904 from within 10 miles of his mills will in

the course of 3—5 years yield a most satisfactory supply of well grown timber. So it is elsewhere.

Again, since Mr. Harrison gave his evidence, the Forest Department have taken steps to increase artificially the simul supplies; the steps taken are detailed in paragraph 9 of Mr. Hart's (the Inspector General of Forests) Note on a tour of inspection in some of the forests of Assam dated March 24th, 1915. The method of arranging with the Miri cultivators to plant simul in their Jhumland appears to be the simplest and most satisfactory way of dealing with this matter. To quote from another Forest Report "Simul is a quick and vigorous grower and in suitable localities and under protection from fire and cutting will become fit for the saw at an age of about 20 years or even less".

It is not possible to lay down Tramways to extract simul, as we have done in the Hollock forests, owing to its scattered areas but without large herd of elephants we find no difficulty in extracting the simul we require for our two mills now working on packing timber.

8. *Power*.—There is ample power available from waste timber and fire-wood in the forests in the immediate vicinity of our mill.

9. *Labour*.—The labour force available is sufficient, the extraction and floating of our logs being done by the local inhabitants, labour for the factory is plentiful owing to the closing of so many saw mills previously employed in the production of country shook boxes.

10. All the subsidiary raw materials for producing this box can also be obtained in this country.

(A) *Lead Linings*.—Two rolling mills already exist and 2 more are actually being erected and we believe will be working in the early part of next year. Burma produces sufficient pig lead to supply any further mills, which would be bound to arise if the local tea-box industry becomes properly established.

The value of lead sheets imported into India for tea chests during recent years is as follows and reflects the growth of the industry locally.

	Cwts.	Value. Rs.
1910-11	53,384	8,07,000
1913-14	40,199	8,56,000*
1918-19	88,136	32,01,000*
1922-23	19,386	6,57,000
1923-24	23,050	6,90,000
1924-25	24,211	8,66,700
1925-26	21,616	7,47,256

Present prices of 2 oz. lead linings are as follows:—

	Rs.	A.	P.
19×19×24	0	11	3
19×19×22	0	10	6
18×18×20	0	9	9
16×16×20	0	8	5
16×16×18	0	7	11

In some kinds of imported chests aluminium linings are used. As far as we know these are not made in India.

(B) *Fittings*.—The fitting required is a "Terne" plate and consists of an iron plate covered with tin; these are now being manufactured at Kamarhatty, from imported Terne plates. A tin plate industry has also been established

*At Rs. 15 to £1.

at Tatanagar. We are of the opinion that this part of the box in course of time can be wholly supplied in this country.

Prices of these fittings are at present:—

	Rs.	A.	P.	
19×19×24	0	10	3	Per box including nails, rivets, tenter hooks and parchment paper to cover bat- tens.
19×19×22	0	10	0	
18×18×20	0	8	9	
16×16×20	0	8	1	
16×16×18	0	7	7	

(C) *Glue*.—Up to 2 years ago, this Company was buying its glue from abroad but after a long period of experimental work it was found that a satisfactory cement could be produced in India and this is now being manufactured by a well known firm of Chemists in Calcutta.

11. Market.

The market for our produce is at our very door and provided an inducement is given to the Tea Industry to purchase, the proposed increased production could be sold within 50 miles of our factory.

12. Reasons of failure of the Surma Valley Saw Mills.

The question of the failure of the above Company is one that needs an explanation; it was due to the difficulty of obtaining a satisfactory cement during the war, and to the difficulty of obtaining expert knowledge as regards the Timbers suitable for veneering into tea boxes.

This Company was the pioneer of 3-ply tea box production in India and at the commencement of operations it was thought that any timber that could be veneered was suitable for a tea box; this was eventually found to be incorrect as the essentials of a suitable tea box are that they must be uniform in strength and tare; consequently unless the timber used in the box is always the same these conditions cannot be fulfilled.

The early operations of this Company proved this to be the case as although many thousands of "Surma" boxes arrived at their destination in a sound condition, yet others were not sufficiently strong to withstand the very rough handling which tea chests are prone to receive before they reach the London Warehouses.

The question of using a timber free from smell is also of the first importance as tea is very sensitive and apt to pick up any smell with which it comes into contact; this is known in the Tea Trade as "taint" and some "Surma" invoices were damaged through the use of a few unsuitable timbers, such as Holoichuckie.

During the last year of its existence, the Company did manufacture a sound 3-ply box made of Toola timber with a hardwood centre but previous complaints had prejudiced buyers to a great extent against the "Surma" box and the outturn was not sold; there is no doubt that the box would have been eventually established had not previous losses placed the Company in such a financially unsound condition that it had no alternative but to cease operations.

We believe that the failure of the Buxa Timber and Trading Company was due to the same cause, as, since they were working under a Clear-Felling timber lease, they were compelled to manufacture boxes from mixed timbers with the inevitable result. This mill is now being re-opened.

The Assam Saw Mills and Timber Company, Limited, have never been troubled in this respect because their box has always been made of Hollock timber only; this was proved to be suitable before the plant was erected and

it is only after very careful experiments that it has been decided that a simul box, with a hard wood centre, will give equally good results and be more economical to manufacture.

(2) *Letter from the Assam Saw Mills and Timber Company, Limited, to the Secretary to the Government of India, Commerce Department, Delhi, dated the 18th January 1927.*

We have the honour to refer you to your No. 483-T. of December 13th and should deem it a favour if you would advise us whether this matter has been referred to the Tariff Board for enquiry.

We invite a special reference to paragraph 3 of our letter No. 3682-26—6276 of 8th December 1926 because we have since heard that steps are now being taken by tea box importers to have their tea shooks marked by foreign manufacturers in such a way that they may be identified when imported and later exported with a view to claiming 7ths of the import duty under section 42 of the Sea Customs Act, 1878 (Act XIII of 1878).

In support of this statement we quote as follows from a letter dated 17th January 1927 from one of the leading Tea Firms in Calcutta; this firm has used our boxes extensively for the last three years and it would be a serious matter to this Company if the support was withdrawn.

"As considerable users of tea chests turned out by your Mills we write to bring to your notice the fact that the Collector of Customs has now confirmed that a drawback of duty on imported chests can be obtained at the time of export provided the identity of the chests upon which the drawback is claimed, can be readily established at the time of shipment. In effect, this would probably mean that the drawback would only be obtainable on the panels but even so this would amount to over annas 4-6 per chest and would probably bring the cost of imported boxes under the price now being quoted by your mills. In view of the above, we trust you will be successful in obtaining some concession from the Government of India, which will enable us to continue placing our orders with your Mill."

It is not for us to criticise the decision of the Collector of Customs but whether this Act was ever meant to apply to a case of this sort is, we would suggest, extremely doubtful; was it not meant for raw materials or finished articles imported and then exported because they were found to be surplus to this Company's requirements.

In the case of tea shooks we submit that when they are exported their form has been changed, since, having undergone a certain process of manufacture in being made into tea boxes, they cannot be said to have been exported because they have been found useless or surplus in this country; on the contrary they have served a very useful purpose, and have already performed part of their destined duty.

We submit that a reduction to absurdity might be argued by seeking to substantiate a claim for a refund of import duty on imported cotton thread when this thread was being exported in the form of a woven cloth.

We feel sure that you will appreciate the urgency of the matter to this Company and it is for this reason that we venture to hope it will have your very urgent attention.

(3) *Letter from the Assam Saw Mills and Timber Company, Limited, to the Secretary to the Government of India, Commerce Department, Delhi, dated the 10th February 1927.*

We have the honour to refer you to our No. 3682-26—6276 of December 8th, 1926, and also to our letter of January 18th, 1927, regarding the present condition of the Tea Box Industry of this country.

The matter is of such importance to this Company that we venture to draw your special attention to this correspondence and to request you to advise us whether it has been referred to the Tariff Board for enquiry.

In sub-paragraph 2 of paragraph 2 of our letter of December 8th, we stated that this industry could not develop at the present time or even continue to exist without the help of protection on account of acute foreign competition and in support of this statement we quote from information that we have just received from our London Office.

"The fact that the Finnish ply-wood manufacturers have formed a strong Association leads one to assume that they will issue particulars of exports month by month as do the Finnish Saw Millowners' Association with solid wood. This, however, does not seem to have developed.

This would apply also, in time, to Sweden, though we do not think that manufacturers there have combined so strongly as in Finland.

Generally Europe is able to make more ply-wood than can be observed, hence Associations and ply-wood publicity."

It is the last paragraph which calls for special comment because we know that the cut prices which we have to face on every side are entirely due to this foreign surplus manufacture being dumped into this country to the detriment of Indian factories. This Indian industry is being gradually extinguished to the benefit of Swedish and Finnish Mills.

(4) *Representation, dated the 9th June 1927, to the Tariff Board.*

1. In accordance with your public notification we submit herewith our memorandum on the Manufacture of Tea Boxes in India at the present day and lay before you our request for a measure of assistance to an industry which, we claim, fulfils all the conditions laid down by the Fiscal Commission for industries seeking protection and encouragement.

2. We claim, in accordance with the first condition, that the industry possesses natural advantages in the form of an abundant supply of the principal raw material, namely timber. It possesses also an adequate supply of the subsidiary raw materials—lead, tene plates, and materials for the manufacture of glue. It also has at its door a very large home market.

Power is supplied from the waste timber and is accordingly cheap and there is a sufficient supply of labour, much of it of a class which is pre-eminently fitted for the industry and for little else.

3. Secondly we claim that whereas so recently as 1912 on the evidence of the Inspector-General of Forests, the position of the tea box industry in Assam was considered satisfactory in that 73 per cent. of the boxes used were manufactured from local timber, to-day probably not more than 15 per cent. at the outside is supplied locally, the balance being imported.

The manufacture of country made shook boxes has been almost entirely killed, while the manufacturers of 3-ply veneer boxes, which have ousted the country shook box in popular favour, have either closed or are only just able to keep their heads above water for various reasons which will be dealt with later. At the present moment the industry is at the parting of the ways; with encouragement it can proceed to a prosperous future; without encouragement it will be crushed out of existence.

4. We claim and will endeavour to prove that it is only support in the form of orders at reasonable prices which the industry requires and that with its natural advantages, it will eventually be able to face world competition without protection of any sort.

5. Further we claim, in accordance with paragraph 98 of the Fiscal Commission's report that—

- (a) the industry is one in which increased production will mean increased economy and
- (b) that there is no reason why eventually the bulk of the tea crop of India should not be exported in Indian made boxes of a quality at least equal to imported boxes, with consequent benefit to India.

6. We are reluctant to ask for a further protective duty on Foreign chests which would increase the price of chests to the whole Tea Trade, and we therefore ask that the refund of $\frac{1}{4}$ th of the present import duty when the chests are exported from India be disallowed and that a bounty of annas 4 per chest be granted to the manufacturers of tea boxes in India; if this is not considered possible then we have no alternative but to request that the drawback of import duty be disallowed and the import duty raised to 25 per cent. We have no hesitation in asking that the drawback of import duty be disallowed because we submit that the rules relating to this drawback were never intended to apply to a case of this sort. This statement is supported by the fact that when the import duty was increased from $2\frac{1}{2}$ per cent. to 15 per cent. Government stated that it was not a protective duty in any way but a revenue tariff (*vide* Sir Charles Innes' speech in the Legislative Assembly on 20th March 1923) and it will be admitted that no revenue raising duty would ever have been imposed if it had been considered possible that $\frac{1}{4}$ th of it could be reclaimed.

We ask not for a large increase in the price of our chests over present prices, but for a means of stimulating our sales to enable us to increase our outturn and thereby reduce our costs.

THE CONDITION OF THE TEA BOX INDUSTRY IN INDIA.

1. *Origin and history of country shook boxes.*—For many years after the Tea Industry had been established in India, the boxes used for packing tea were supplied from timber grown on or near to the tea gardens. The box was a crude affair, made by hand sawyers and consisted of shakes $\frac{1}{4}$ " thick. These sawyers were to a large extent, though not entirely, supplanted by Saw Mills which in course of time were so successful that in Assam alone there were at one time 12 mills capable of producing some 12 lakhs of boxes. The situation and present position of these mills is shown as follows:—

Hopewell at Dehingmukh.—Closed for lack of orders.

Tezpur at Tezpur.—Demolished for lack of orders.

Sissi at Sissi.—Burnt, not rebuilt for lack of orders.

Meekla at Laimakurite.—Manufacturing tea boxes and packing cases for the Calcutta market.

Bordutti at Badati.—Closed for lack of orders.

Ohooroonia near Dibrugarh.—Closed for lack of orders.

Halkutta near Dibrugarh.—Manufacturing a few boxes.

Furkating at Furkating.—Closed for lack of orders.

Bordeobam at Bordeobam.—A mill belonging to a tea garden produced a few boxes, but now closed.

Lakhipore at Lakhipore.—Closed.

Saikwa at Saikwa.—Demolished for lack of orders.

Surma at Surma.—Closed for lack of orders.

In the early days, therefore, the requirements of the Tea Industry were entirely supplied locally.

So late as 1912, on the evidence of the Inspector-General of Forests (see Note of Inspection on some of the Forests of Assam by G. F. Beadon Bryant,

Esq., C.S.I., dated 22nd April 1912) 73 per cent. of the Tea Industry's requirements in Assam were supplied by locally made country shook chests.

During the War, all these mills were working to their full capacity and the demand for country shook boxes was so great that the Surma Valley Saw Mills, for instance, were asked by the Controller of Munitions to increase their output from one lakh to 3 lakhs of boxes. To-day it is doubtful if these twelve mills could sell 150,000 boxes and in the very near future we do not think there will be any demand at all for a box of this type.

This one time flourishing industry has been supplanted by the 3-ply veneer box.

The following figures of timber extracted and royalty paid by the Assam Saw Mills and Timber Company, Limited and the Surma Valley Saw Mills, Limited, will show how the industry has been dying from 1920 to 1926:—

Assam Saw Mills and Timber Company Limited.

Year.	For 3-ply chests.	For $\frac{1}{2}$ " shook Country chests.	Planks and Packing Cases.	Value in Royalty.
	Cubic feet.	Cubic feet.	Cubic feet.	Rs.
1920	...	1,440,578	...	45,018
1921	...	815,741	...	25,492
1922	...	55,217	...	18,350
1923	231,150	1,491,983	...	41,576
1924	234,360	1,105,581	57,391	61,390
1925	296,050	988,256	778,864	34,172
1926	124,757	323,165	441,265	36,371
1927 (estimated)	506,000	150,000	675,000	30,500
		155,000	315,000	

Surma Valley Saw Mills, Limited.

Year.	Timber extracted.	Value in Royalty.
	Cubic feet.	Rs.
1920	...	...
1921	...	...
1922	348,000	11,418
1923	380,000	19,046
1924	342,000	21,937
1925	13,000	1,266
1926	111,000	3,885
	233,000	12,267
	Nil	Nil

These figures relate only to the mills in which Bird and Company are or were interested and are only a small part of the timber extracted by the mills of Assam in years gone by.

2. *Reasons for the economic advantages of the 3-ply chest.*—Figures showing the enormous increase in the imports of the 3-ply chests during the last few years are given in the next paragraph and it is worth while relating some of the reasons for their popularity and almost general use.

- (A) The standard large size chest carrying about 115 lbs. of tea weighs empty 16–18 lbs., whereas a country shook chest weighs 28 lbs.; this was not a serious matter a few years ago but now the steamer and railway companies are charging freight on gross weight, whereas before freight was paid on cubic capacity.

- (B) In a country shook chest which was not made of really seasoned wood, a 4 oz. lead lining was found to be necessary; in a 3-ply

chest a 2 oz. or 2½ oz. lead lining or an aluminium lining is suitable which shows a large saving in the cost of this important part of the box.

N.B.—A 4 oz. lead lining is one which weighs 4 oz. to the square foot.

(C) Owing to the timber in a shook box being ½" thick as against a 3-ply panel of ¼" thick, 9 per cent. more shook boxes of standard size are required to pack any given quantity of tea, as box sizes are taken on outside measurement.

(D) The price of the 3-ply box has fallen from War prices of Rs. 10 to about Rs. 3-7 at the current time, though latterly we have found that we have on occasion been in direct competition with a far lower price; this price of Rs. 3-7 would automatically fall to Rs. 3-3 in the event of the refund of ¼th of the import duty being permitted.

3. *History of 3-ply Veneer Boxes.*—As the Tea Trade developed, so the demand for tea boxes increased and was met by the imported 3-ply chest; the value of boxes imported before and after the War, as far as we have been able to obtain them, were as follows:—

Year.	Value. Rs.
1906-07	23,57,108
1911-12	44,72,998
1913-14	52,09,470
1918-19	91,00,000
1923-24	63,00,000
1924-25	91,00,000
1925-26	72,72,781

Value of plywood chests sold by this Company.

Year.	Number.	Value. Rs.	Average per box. Rs. A. P.
1923-24	249,840	9,24,411	3 11 3
1924-25	189,932	7,60,476	4 0 0
1925-26	247,789	9,10,430	3 10 9
1927 to date	274,627	8,49,738	3 1 6

The panels and battens of these imported chests are mostly manufactured in Russia and other northern countries of Europe, shipped to England, repacked with the necessary fittings and linings and reshipped from that country; some are shipped direct from the country of origin, *vide* Note attached dated 1st April 1927 from the Consulate General for Finland in London.

4. *The origin of 3-ply boxes manufactured in India.*—The difficulty of obtaining supplies of suitable tea boxes was so acute in 1917 that the Surma Valley Saw Mills were requested by the Munitions Board to increase the output of boxes and a first class certificate of priority was given to obtain the necessary plant for an up-to-date Veneer Plant. Imported veneer boxes were then costing about Rs. 10 per box and the Japanese Momi ½" plank box about Rs. 7 complete. At a meeting at Government House, Shillong, on June 27th, 1917, called to discuss the question, the Chief Commissioner said "In the first place, this tea box industry should be looked upon as a war contribution.

Apart from this it was of the utmost importance to the province that it should supply its own tea boxes and not depend upon foreign sources of supply such as Russia and Japan. *The profit from Royalty was but a small proportion of the total gain to the province from the establishment of a large industry.*"

(N.B.—This Company during the last 3 years has circulated money in the North-East Frontier Tracts and Lakhimpur amongst the poor tribes of Miris, Arbors and other residents of these provinces.

	Rs.
1924	7,26,007
1925	6,66,813
1926	5,79,517

We believe that if a reference were made to the Political Officer of the North-East Frontier Tracts, that he would confirm the value of such a circulation of money.)

Hence it was that the Surma Valley Saw Mills under the management of Messrs. Bird and Company, Calcutta, became the pioneers of the veneer wood industry in Assam, their timber lease being made dependent upon the erection of a veneer factory.

The fact that, both in the case of the Surma Saw Mills and in the case of this Company the Government of Assam would only grant a 30 years lease of these forests provided these valuable veneer plants were erected, one in Upper Assam and one in Lower Assam, proves that the local Government knew the value of fostering the local tea box industry and it is clear that they were anxious to assist it.

In the following year the Assam Saw Mills and Timber Company Limited came into existence and were granted a 30 years lease to extract timber from the North-East Frontier Tracts, one of the terms of this lease being that a veneer plant was to be erected within two years. About this time the Buxa Timber and Trading Company, Limited managed by Messrs. Davenport and Company came into being and erected a veneer plant in the Dooars District.

The Surma Valley Saw Mills Company, Limited and the Buxa Timber and Trading Company, Limited both met with failure and closed down. We deal with their history later. The present signatory Company succeeded in producing first class 3-ply veneer boxes, where its competitors at that time failed.

This Company first started serious operations in the year 1923 and since that time have sold approximately one million chests without a serious complaint of any sort which goes to prove that the quality of this product is satisfactory in every way. In addition we may add that our 2 largest contracts totalling over 1½ lakhs of chests have been repeated for the third year in succession, and indeed during the current years one large Tea Firm is packing its entire crop in the chests of this Company. Invoices of these chests can of course be seen in the Calcutta or London warehouses at any time.

5. *Advantages of establishing the Industry in India.*—The general advantages of establishing the industry in India were very well put by the Chief Commissioner of Assam at the above mentioned meeting. The particular advantages of a sound saw mill industry at a time of national emergency were amply illustrated by the various demands made by the Government of India during the War; for instance the mills were pressed to supply timber for the Ordnance Factories and Munitions Board in addition to largely increasing the output of tea boxes; the situation was so serious at one time that the Inspector-General of Forests wrote to the Conservator of Forests, Western Circle, Assam, on the 16th of January 1916 to the following effect:—

"With the approval of the Government of India, I am writing to tell you that the position has now reached an acute state; so acute indeed that the Director General of Military Works in Simla classes it as a grave national emergency * * * it seems certain that it will be necessary to ship monthly to Mesopotamia, Egypt and Salonica

some 9 lakhs of cubic feet of timber and that any shortage in this supply will be a matter of great embarrassment to the conduct of military operations."

Further the mills were pressed forward to erect Veneer Factories to supply veneer chests and also plywood for aeroplane construction. For instance, the Conservator of Forests, Western Circle, wrote to the Manager of the Surma Valley Saw Mills, Limited on 22nd July 1916:—

"I have the honour to bring to your notice that the prohibition against the importation into the United Kingdom of Beech and Birch Timbers that are largely used in the manufacture of patent tea chests, is likely to affect the import of those chests from the United Kingdom into India and thus affords an opportunity to the Saw Mills in India to expand the manufacture of tea chests in order to meet the shortage in imported chests."

These were the circumstances under which the first mill was erected.

6. *The natural advantages of the Indigenous Tea Box Industry.*—In claiming that there is an ample supply of timber for tea boxes in India, we speak from our experience in Assam only; we have at present by us only one report by the Forest Department indicating the amount of hollock timber (*Terminalia myriocarpa*) available for extraction for veneering purposes. This is the report on the Enumeration Survey of the Sadiya Forest Division No. A-114, dated 18th August 1922. From this report we calculate that the amount of hollock available is 139,400,000 cubic feet. Hollock matures in 50—60 years, and using this timber alone, we find we require about 1½ cubic feet per box.

Assuming that all this hollock is extractable, there would be sufficient supply for some 18 lakhs of pure hollock boxes per annum from these areas alone, until such a time as fresh planted hollock matured. Hitherto all our boxes have been made of this timber.

In addition to hollock there are very large quantities of *simul* timber (*Bombar malabaricum*) available but no enumeration has ever been attempted; the Shook Box Mills for many years supplied lakhs of boxes made from *simul* timber which boxes were in great demand by tea planters and were found to be most suitable for carrying tea. We calculate that on an average, over a large number of years, 8 lakhs of boxes were produced annually, which would require more than 16 lakhs cubic timber in the log. Of these more than 5 lakhs of boxes, requiring over 10 lakhs of timber were produced by the mills situated in Lakhimpur alone.

Simul grows to maturity in 20 years and some of the areas re-planted by the Forest Department some 10—15 years ago are already showing great promise. From time to time in the past the Shook Box Mills complained of a shortage of timber; they were complaining over 14-15 years ago but we still find no insurmountable difficulty in obtaining *simul* timber and are advised by our Forest Assistants that in 3—5 years the position will become vastly easier, owing to natural rejuvenation and to the Forest Department's action in the past. In view of the above facts, we have decided after many months of experimental work to introduce gradually a tea box manufactured of *simul* timber with a hardwood hollock centre which makes a most excellent box. The advantage of establishing an industry based on a timber which matures in so short a time is obvious. Taking the supplies of hollock and *simul* together in the proportion of one-third to two-thirds, we see no reason why the Brahmaputra Valley should not ultimately supply without difficulty 15 lakhs of boxes or one-half of the requirements of the Tea Trade. Any further development in Upper Assam will depend upon the re-afforestation policy of the Government.

In addition to the areas under review, there are the areas utilised by the veneer plant of the Assam Railway and Trading Company and those previously used by the Buxa Timber and Trading Company, and there are also areas in Burma, Southern India and the Andamans which should be capable of supplying tea box timbers.

7. *Assistance required from the Forest Department in respect of Timber Supplies.*—The evergreen forests of Assam have hitherto proved of such small commercial value that the Forest Department have not been justified in spending a large amount of money in the enumeration and rejuvenation of forests. A greater knowledge of the resources available would be of much assistance in the development of the industry. This was brought in notice in 1912 by Mr. Bryant, the then Inspector-General of Forests in his note of Inspection on some of the Forests of Assam, Section 23, sub-paragraph 1. The Enumeration Survey of the Sadiya Forest Division, A. 114 of 18th August 1922, is an example of the value of such work. This latter report deals with hollock forests which are for the most part pure forests and easier of enumeration than *simul* which grows in more scattered areas. If the assistance which is asked for from the Tariff Board is granted, it will be most desirable that an estimate of *simul* in the various areas be made; at the present moment we rely mainly on our forest assistants for our reports and owing to lack of funds and pressure of work they have been unable to look many years ahead.

That there are very large areas of *simul* available we are quite confident; it is true that so long ago as 1912, the Managers of Meekla and Sissi Mills were complaining of a shortage of *simul* timber; for instance Mr. A. J. Harrison, C.I.E., of Meekla Mills, stated that in 1904 he could obtain his supplies from within 10 miles of his mills while in 1912 he had to go 50 miles to obtain his requirements; further he stated that he was of opinion that within 5 years it would be practically impossible to obtain his supplies "within a working figure of costs." Therein lies the crux of the situation. To make a country shook box 2 cubic feet or more of timber is required whereas a 3-ply box consumes 1½ cubic feet only (we have had results down to .85 of a cubic foot), and it is therefore possible in manufacturing 3-ply boxes to work further a field within an economic cost. Moreover Mr. Harrison then stated that there was "any quantity of immature *simul* regeneration along the north bank of the Brahmaputra in the grass lands, which only required protection to allow it to grow into mature trees" and the areas from which Mr. Harrison was obtaining his supplies in 1904 from within 10 miles of his mills will in the course of 3—5 years yield a most satisfactory supply of well grown timber. So it is elsewhere.

Again, since Mr. Harrison gave his evidence, the Forest Department have taken steps to increase artificially the *simul* supplies; the steps taken are detailed in paragraph 9 of Mr. Hart's (the Inspector-General of Forests) Note, on a tour of Inspection in some of the forests of Assam, dated March 24th, 1915. The method of arranging with the Miri cultivators to plant *simul* in their Jhum land appears to be the simplest and most satisfactory way of dealing with this matter. To quote from another Forest Report " *Simul* is a quick and vigorous grower and in suitable localities and under protection from fire and cutting will become fit for the saw at an age of about 20 years or even less."

It is not possible to lay down Tramways to extract *simul*, as we have done in the billock forests, owing to its scattered areas but with our large herd of elephants we find no difficulty in extracting all the *simul* which we require for our mills.

In addition there are many other suitable timbers and we submit that if India is to supply her own increasing supplies in tea boxes in time to come a far reaching programme of research and re-afforestation is both desirable and necessary.

8. *Power.*—There is ample power available from waste timber and fire-wood in the forests in the immediate vicinity of our mill.

9. *Labour.*—The labour force available is sufficient, the extraction and floating of our logs being done by the local inhabitants. Labour for the factory is plentiful owing to the closing of so many saw mills previously employed in the production of country shook boxes.

10. All the subsidiary raw materials for producing this box can also be obtained in this country.

(A) *Lead Linings*.—Four rolling mills now exist (3 in Calcutta) and Burma produces sufficient pig lead to supply any further mills, which would be bound to arise if the local tea-box industry becomes properly established.

The value of Lead Sheets imported into India for tea chests during recent years is as follows and reflects the growth of the industry locally.

	Cwts.	Value. Rs.
1918-19	88,136	32,01,000*
1923-24	23,050	6,90,000
1924-25	24,211	8,66,700
1925-26	16,495	5,67,732

* at Rs. 15 to £1.

(B) *Fittings*.—The fitting required is a "Terne" plate and consists of a steel plate covered with lead or sometimes a steel plate covered with tin; these are now being manufactured at Kamarhatti, from imported terne plates. A tin plate industry has also been established at Tatanagar. We are of the opinion that this part of the box in course of time can be wholly supplied in this country.

Prices of these fittings and linings are at present approximately :—

	Rs. A. P.		Rs. A. P.
19×19×24	1 4 6	to	1 7 6
19×19×22	1 3 6	to	1 6 6
18×18×20	1 1 6	to	1 5 0
16×16×20	1 0 0	to	1 0 6
16×16×18	0 15 0	to	0 15 6

The above includes nails, rivets, tenter hooks and parchment paper to cover battens.

(C) *Glue*.—Up to 2 years ago, this Company was buying its glue from abroad but after a long period of experimental work it was found that a satisfactory cement could be produced in India and this is now being manufactured by a well known chemical firm in Calcutta.

11. *Market*.—The market for our produce is at our very door and provided an inducement is given to the Tea Industry to purchase, the proposed increased production could be sold within 50 miles of our factory.

12. *The Industry's special need*.—This Company is labouring under immense difficulties due to its inability to sell its full outturn. We have been well supported by several large tea firms and this support we gratefully acknowledge, but many firms show no inclination to buy an Indian box though we are frequently assured that this is neither on account of quality or price; from those Tea Houses from whom we have obtained orders it has been in the face of the keenest competition.

This Company is reluctant to ask for a protective tariff, especially since in the immediate future the tea box industry cannot supply all the boxes required, but on the other hand unless some form of assistance is given this important industry will cease to exist; the Tea Industry were compelled to pay enormous prices during the late war and in view of the relations of Bolshevik Russia with other European countries and in particular with the Northern States of Europe where imported boxes are manufactured, it is not unlikely in the near future that India will again be faced with a shortage of boxes for removing her tea crop; if this Tea Box Industry ceased to exist it would indeed be a difficult matter to replace at short notice the 12 mills which were working during the years of the great War and which supplied some 10 lakhs of boxes annually during that period. If a stimulus were given to the Tea Trade to buy Indian made boxes resulting in Tea Box manufacturers receiving encouragement to increase their production, and in new firms or the firms established in Great

Britain laying down new mills, then the requirements of the Tea Trade can, we maintain, eventually be met at an economic figure by local production.

13. *Ability to face World's competition*.—We learn on the evidence of Mr. R. S. Pearson, the Forest Economist, Dehra Dun, in his notes published in the *Indian Forest Records*, Vol. V, Part 1, that in 1912, the standard large box (19"×19"×24") was selling at prices between Rs. 2-14 and Rs. 3-7: prices to-day average about Rs. 3-7 which considering the rise in all costs since the war and the increase of duty from 2½ per cent. to 15 per cent., shows the present state of cut throat competition. We would point out, too, that pre-war prices were calculated on a Rs. 1-4 exchange whereas boxes imported during the last few months must have been purchased on an exchange of about Rs. 1-6. The increase of duty was not put on as a protective duty but as a Revenue Tariff and has in no way helped manufacturers in India owing to the rise in exchange.

Our costs will on varying outturn be as follows :—

	Per box. Rs. A. P.
300,000	3 7 0
400,000	3 4 1
500,000	3 1 9

These figures are based on a timber royalty of 6 pies per cub. ft.; if the Government of Assam raise the rate of royalty to 1 anna and 6 pies per cub. ft. from July which may be done according to the terms of our lease, then these costs will be one anna higher.

We are satisfied that we can work to these figures which show that the industry can face world competition without assistance.

14. *Reasons of failure of the Surma Valley Saw Mills*.—The question of the failure of the above Company is one that needs an explanation; it was due to the difficulty of obtaining a satisfactory cement during the War, and to the difficulty of obtaining expert knowledge as regards the Timbers suitable for veneering into tea boxes.

This Company was the pioneer of 3-7-ply tea box production in India and at the commencement of operations it was thought that any timber that could be veneered was suitable for a tea box; this was eventually found to be incorrect as the essentials of a suitable tea box are that they must be uniform in strength and tare; consequently unless the timber used in the box is always the same, these conditions cannot be fulfilled.

The early operations of the Company proved this to be the case as although many thousands of "Surma" boxes arrived at their destination in a sound condition, yet others were not sufficiently strong to withstand the very rough handling which tea chests are prone to receive before they reach the London Warehouses.

The question of using a timber free from smell is also of the first importance as tea is very sensitive and apt to pick up any smell with which it comes into contact; this is known in the Tea Trade as "taint" and some "Surma" invoices were damaged through the use of a few unsuitable timbers, such as Holoichuckie.

During the last year of its existence, the Company did manufacture a sound 3-7-ply box made of *toola* timber with a hardwood centre but previous complaints had prejudiced buyers to a great extent against the "Surma" box and the outturn was not sold; there is no doubt that the box would have been eventually established had not previous losses placed the Company in such a financially unsound condition that it had no alternative but to cease operations.

We believe that the failure of the Buxa Timber and Trading Company was due to the same cause, as, since they were working under a Clear-Felling Timber Lease, they were compelled to manufacture boxes from mixed timbers with the inevitable result. This mill is, we understand, now being reopened by an Indian Syndicate.

The Assam Saw Mills and Timber Company Limited, have never been troubled in this respect because their box has always been made of hollock timber only; this was proved to be suitable before the plant was erected. No criticism of the quality of this Company's 3-ply tea chest can be maintained, as increased sales and continuity of business over the last four years with firms who have no vested interests in imported boxes will confute any such criticism.

THE PLYWOOD INDUSTRY IN FINLAND.

Plywood has been made in Finland since the year 1912, when the first factory was established at Jyväskylä and in the years which have passed since then the industry has made rapid progress. There are now fourteen plywood mills in Finland, three of which have only just been completed. In 1925 Finland exported 43,899 tons of plywood, representing a value of rather more than 127 million Finnish marks.

It is a well known fact that there are three different processes for making plywood. The Finnish mills use exclusively what is called the turning process, a method about thirty years old, which has been widely adopted because it entails lower costs of production than the other methods, while at the same time it produces a good article.

The principal raw material of the Finnish plywood industry is birch wood, aspen is also used to some extent, and some small quantities of alder. Up to the present softwood has only been used occasionally and mainly by way of experiment. Finland is in the happy position of having an ample supply of birch, at least for the present and as this wood makes an excellent raw material, it is naturally used by preference so long as it is available at a reasonable price. But in view of the rapidity with which the plywood industry has developed and if it continues to advance more or less normally in the future, one must look forward to a time when the question of the supply of raw material even if it does not present actual difficulties, will at least demand more attention than has hitherto been given to it.

In this connection, it may perhaps be in place to give a few figures about the timber resources of Finland. A State valuation of the forests has lately been made and showed that about 62.5 million acres, or 73.5 per cent. of the total land area of Finland is covered with forest. About 49 million acres of this area are normally productive. The proportion of different kinds of trees in the forests is given rather variously in different statistics. The State valuation came to the result that 55.2 per cent. was pine, 24.8 per cent. spruce and 18.6 per cent. hardwood, including 16.9 per cent. of birch, but other estimates give rather a bigger proportion of hardwood, some of them as much as about 25 per cent. It is generally agreed, however, that birch trees constitute round about 17 per cent. of the forests. According to the State valuation, again, the total quantity of timber in the forests of Finland is about 57,210 million cubic feet solid measure, including bark.

As stated above, the first plywood mill in Finland was started in 1912. This mill belongs to *Wilhelm Schaumanns Fabrik Aktiebolag* and is the biggest plywood factory in the country. The Company owns two mills at Jyväskylä, one of which makes up the plywood into various articles and one at Savonlinna (Nyslott) besides which it has the control of a mill in Joensuu. The combined annual output of all these mills is about 25,000 tons. The next mill in order of size belongs to *Joh. Parvainen Tehtaat O. Y.* of Jyväskylä and was established in 1914. It was burnt down in 1917 but replaced by a new mill which was completed two years later. Its output is now about 9,000 tons of plywood annually. Then come two quite new mills, one built at Varkaus by *A. Ahlstrom Osakeyhtio* and the other by *Aktiebolaget Kaukas Fabrik*, on a site belonging to the Kaukas mills at Lappeenranta (Willmanstraud). Both these mills commenced operations this month and they will have to begin with an annual output of about 9,000 tons each, but can double that output in case of need. The mill at Souhasti belong to *O. Y. Suolahden Tehtaat* is about the same size as the two last named. Its head office is in Helsinki (Helsingfors).

It was opened in 1919. Next in order of size comes *Aktiebolaget Kareliawood Osakeyhtio* a subsidiary company of *Aktiebolaget Wartsila*. This mill was started in 1921, and has at present an output of about 5,500 tons a year. *A/B Finner O/Y* of Lohja (Lojo) opened a mill in 1916 which now produces nearly 5,000 tons annually. *Saastemonien Finneri O/Y* of Koupie is nearly as big. Its plywood mill, called *Koivuniemi* is situated close to the said town, was opened in 1922 and at present has a yearly output of about 4,500 tons. *Fennia Finneri Osakeyhtio* of Lahti, has quite a new mill, which commenced operations about three months ago. Its present annual output is about 4,500 tons. After this comes *O/Y Alba Nora A/B* of Porvoo (Borge) which opened its mill at the beginning of this year and makes about 3,000 tons yearly and *Osakeyhtio Pirttiniemi* of Pori (Bjorneborg) established in 1922 whose annual output is about 3,500 tons. Finally *Ledoga Timber A/B* of Lahdenpohja, have a mill still in course of erection which will probably be opened in about a month's time and is expected to produce 81,000 tons a year.

As soon as all the above mills are at work, their combined output may be estimated at about 90,000 tons of plywood annually. The greater part of this production will be exported, as has hitherto been the case. It is well known that a large quantity of plywood is used for making tea chests. Birch plywood is peculiarly well suited for this purpose as it does not affect the taste of the tea, which other hardwoods and still more softwoods, are very much inclined to do. It has been estimated that about 25—30 per cent. of all the plywood made in Finland is sold for making tea chests and it is often sewn up into boards of the requisite dimensions for this purpose before being exported. The Finnish customs statistics have given plywood as a separate item since the year 1920 and the following figures show how exports have grown since that date:—

Year.	Plywood exported.
	Tons
1920	12,890
1921	10,211
1922	20,059
1923	28,378
1924	38,223
1925	43,899

It is rather difficult to estimate in advance how much will be exported in 1926 but taking into account the new mills that started last year, the quantity may probably amount to 65,000—75,000 tons. Finland incontestably takes the first place among the plywood exporting countries, as may be seen from the following figures, showing the quantities of plywood exported by different countries in 1925:—

	Tons.
Finland	38,223
Estonia	10,142
United States	10,000
Russia	10,000
Poland	7,790
Latvia	2,910
Norway	2,700
Canada	2,500
Holland	1,850
Lithuania	1,300
Sweden	782
Czecho Slovakia	250
Austria	150
China	150
Belgium	20

One reason why Finland is able to export such a large quantity is that comparatively little plywood is consumed within the country, only about 5—10 per cent. of the total output, whereas Germany and the United States for instance, consume nearly 80 per cent. of what they produce.

A notable event which occurred recently in the Finnish plywood trade was the formation of the *Finnish Plywood Mill Association*. The firm of A. Ahlstrom O/Y Aktiebolaget Kaukas Fabrik and Saastemoinen Faneri O/Y took the initiative in forming this organisation, whose functions will be to watch the commercial and political interests of its members and to conduct their sales both in Finland and abroad. The Association began its activities at the beginning of this year and has its head office in Helsinki (Helsingfors). Its membership includes, besides the three mills named above, O. Y. Alba Nova A/B and Osakeyhtio Pirttiniemi, but its organisation is not yet complete and it is probable that other Mills will still join, as negotiations are now in progress. According to notices which have appeared in the foreign trade journals, the formation of this Association has been warmly welcomed abroad. There is no doubt that it will be of the utmost benefit to the Finnish plywood industry, which is one of the industries for which Finland is by nature best equipped.

The export of plywood from Finland during 1925.

	Kilos.
Great Britain	31,349,932
India	4,221,732
Germany	2,710,882
Holland	2,073,579
Argentina	1,028,237
Denmark	520,632
Italy	275,783
Belgium	291,340
China, etc., etc	217,744
Total	43,899,573

(5) Replies to questionnaire, dated the 8th August 1927.

With reference to your No. 633 of 27th July 1927, we enclose six copies of our replies to your questionnaire in connection with the working of this Company, also six copies of our cost sheets for the last 12 months.

REPLIES TO QUESTIONNAIRE FOR THE MANUFACTURE OF PLY WOOD AND TEA CHESTS.

General.

1. The machinery for the Veneer Factory arrived at site in August 1919; manufacture was commenced in May 1922.
2. So far this Company has manufactured ply wood for tea boxes only; it is equipped for making any sort of ply wood.
3. For all kinds of buildings and furniture work.
4. (a) About 5½ million square feet per annum.
(b) Up to date our outturn has been restricted to 30,000 chests per month. As at present equipped this can be raised to 45,000 per month. There is available a duplicate plant to the one now operating at Murkong Selek ready for installation.
(c) If not employed on 3-ply work the factory could turn out about 3½ million square feet per annum; this is an approximate figure, it is impossible

to give an accurate estimate as the Factory has never been employed on work of this sort.

5. (a) Nil.

(b) 12,00,000 chests.

(c) A few hundred square feet only; there is little demand in India at present for 5-ply wood except in the form of Opium chests; it is however our opinion that as the value of ply wood becomes more generally known in Indian markets, the demand for both 3-ply and 5-ply boards must increase.

	Sq. ft.
6. 20" x 20" x 24"	18'8
19" x 19" x 24"	17'6
19" x 19" x 22"	16'6
18" x 18" x 20"	14'5
16" x 16" x 20"	12'4
16" x 16" x 18"	11'5

Capital Account.

7. The Block value of the Company's property as at 30th September 1926 is as follows:—

	Veneer.	Meckla.	Mills closed
	Rs.	Rs.	Rs.
	Nil.	Nil.	Nil.
Leases and Concessions	Nil.	1,000	7,046
Lands	2,31,600	60,526	64,075
Buildings Pucca	15,460	2,732	8,339
Buildings Kutcha	9,15,000	1,85,000	1,68,652
Plant and Machinery	30,650	59,500	8,000
Elephants	6,300	31,550	6,850
Steam Launches and Motor Boats	1,40,138	25,106	6,985
Tramlines	9,688	3,791	10,108
Other miscellaneous assets			
TOTAL	13,48,836	3,69,205	2,80,065
		19,98,096	

It will be noted that we do not show any value for the Forest Lease in the North-East Frontier Tract. This lease is for a period of 30 years from 1921 and under it we have the sole right to fell, log, and remove all the trees, timber and other forest produce from the areas known as the plains portion of the Sadiya Frontier Tract (including Unclassed State Forests and Unclassed State Forests afterwards notified as Reserved Forests. If the tea box industry is to survive, this is, of course, a very valuable property but as noted above we do not show it as an asset in our Balance Sheet.

8. The above figures represent the value after depreciation and after deducting Rs. 5,36,018-3-7 written off on the reconstruction of the Company. Depreciation on the figures given in reply to Question 7 from beginning of the Company to date is Rs. 5,53,168-4-4.

The above figure of Rs. 10,89,186-7-11 has been written off from the Mills as follows:—

Veneer.	Meckla.	Mills closed.
Rs. A. P.	Rs. A. P.	Rs. A. P.
4,69,738 14 4	2,57,166 10 2	3,62,280 15 5

9. Up to the year September 30th, 1923 sums equal to those which ought to have been set aside were actually set aside but since that time this has not been the case.

10. (1) The present day cost for a factory having the same output as our present factory would be Rs. 9,26,869, made up as follows:—

	Rs.
(a) Buildings	3,00,000
(b) Machinery and Plant	7,30,635

(2) The block value of the following items of our present Veneer Factory totals Rs. 17,99,907-1-2. See Answer to Question No. 30.

	Rs.	A.	P.
(a) Buildings	3,66,310	1	4
(b) Machinery and Plant	14,33,596	15	10

N.B.—For net figure, i.e., after depreciation and amount written off under reconstruction, see reply to Questions 7 and 8.

As far as we can ascertain there have been no improvements either in machinery or lay-out which would enable a new factory, similarly situated to ours, to operate at a lower cost except so far as a reduced capital would effect saving.

11. The sums spent on plant and machinery for the Veneer Factory inclusive of duty, freight, erection charges and incidental expenses amount to Rs. 14,33,596-15-10 made up as follows:—

	Rs.	A.	P.
Machinery and Plant	11,46,512	3	5
Tranways	2,28,983	8	5
Motor Boats and Launches	10,300	0	0
Motor Cars	2,801	4	0
Live Stock	45,000	0	0
TOTAL	14,33,596	15	10

Funds were remitted at an exchange of 1s. 7d. Most of the plant came from America.

Working Capital.

12. (i) The working capital which the Company requires on its present output varies between Rs. 4,13,000 and Rs. 6,37,000.

The reply to Question 30 shows that Rs. 4,13,931-3-9 was required as working capital on 30th September 1926. At that date the overdrafts amounted to Rs. 5,42,372. Since that time up to 31st July 1927 the greatest amount of overdraft required has been Rs. 7,65,037-12-3. Capital Expenditure during this time has been negligible which indicates that the working capital of Rs. 4,13,931-3-9 required on 30th September 1926 rises to Rs. 6,36,597 in the season. This period covers the season of the year when the finance requirements are highest. Actually for the Veneer Mill the working capital required varies between Rs. 2,85,000 and Rs. 4,23,000.

(ii) We consider an additional Rs. 1,52,781 would be required under the following headings:—

	Rs.
Timber	35,935
Glue	24,825
Fittings and Linings	52,536
Labour, Stores, etc.	32,810
Packing	6,675

13. No; in addition to share and debenture capital the Company is financed by means of loans from the Imperial Bank and the Managing Agents. The Managing Agents have not charged interest on their loans since 1922.

14. It is necessary to borrow between 3½ lacs to 7½ lacs. The interest charged is Bank rate with a minimum of 5 per cent.

15. The working capital at the Veneer Mill for March 1927 was Rs. 4,23,476; the cost of the outturn in that month was Rs. 74,210.

16. At the Veneer Mills the average value of stocks is about Rs. 1,36,000. Normally a period of 5 months takes place between production and payment, though this is longer in the latter part of the year as very few boxes are delivered during August, September and October.

17. It is not necessary to hold large stocks of coal or any raw material. At the Veneer Factory the value of glue in stock usually amounts to Rs. 20,000 and the value of timber about Rs. 30,000. The average value of timber at Meckla amounts to Rs. 19,000.

Agents' Commission.

18. (a) Yes, an office at Chartered Bank Buildings, Calcutta.

(b) Yes.

19. (i) The Managing Agents receive an allowance of Rs. 9,000 per annum out of which they pay all staff, office rent, etc., but this allowance has been foregone since the year 1922. The Company pays small incidental expenses for stationery, etc.

(ii) 10 per cent. on net profits of the Company.

20. This is determined on the profits of the Company before depreciation or before any amount has been placed to reserve.

Manufacturer's profits.

21. We consider that a minimum average of 10 per cent. would be a fair return for a period of 10 years. It is our experience that Investors demand such a return on their money from Industrial Concerns.

Works cost.

22. We have not details on which we can give these costs.

24. We give the necessary figures below:—

	1924.	1925.	1926.	1927.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Timber	0 5 6	0 5 9	0 7 7	0 7 8
Glue	0 13 3	0 6 4	0 5 3	0 5 1
Power and fuel	0 1 9	0 0 11	0 0 9	0 0 7
Labour and Stores	0 3 3	0 2 8	0 2 11	0 2 8
Supervision	0 3 4	0 3 8	0 2 5	0 2 3
Renewals and Repairs	0 1 9	0 1 10	0 2 1	0 1 8
Fittings, Linings, Nails, Grease, proof paper.	1 11 6	1 11 6	1 7 2	1 5 6
Packing, etc.	0 2 1	0 2 7	0 2 1	0 2 3
Miscellaneous	0 2 0	0 1 7	0 1 4	0 1 3
TOTAL	3 12 5	3 4 10	2 15 7	2 12 0

N.B.—Royalty has been taken at $\frac{1}{2}$ anna per cubic feet. The Company under the terms of the lease is due to pay As. 1-6 per cubic feet but has been allowed a reduction of one anna per cubic feet until July 1928.

24. This is a difficult question to which reply because we have only made sample cases on which it is not easy to base a correct figure, but basing our figure on a full month's estimated outturn we consider that our factory cost for a large 5-ply Opium box delivered at Ghazipur would be Rs. 6-15; the factory cost of a 3-ply tea chest $19'' \times 19'' \times 24''$ is Rs. 2-12-11.

Market.

25. (1) Our reply is given confidentially and it is requested that these figures are not published.

	1924.		1925.		1926.		1927.	
	H.	L.	H.	L.	H.	L.	H.	L.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
$20'' \times 20'' \times 24''$	4 2 6	4 2 6	4 4 0	4 2 6	4 2 6	3 13 9	3 12 0	3 12 0
$19'' \times 19'' \times 24''$	4 4 6	3 12 0	4 4 0	4 0 0	4 0 0	3 10 3	3 10 0	2 12 6
$19'' \times 19'' \times 22''$	4 2 6	3 12 0	4 2 0	4 0 6	3 11 0	3 8 3	3 6 0	2 10 6
$18'' \times 18'' \times 20''$	3 14 0	3 9 0	3 12 0	3 10 6	3 12 0	3 6 6	3 3 0	2 12 0
$16'' \times 16'' \times 20''$	3 12 0	3 6 0	3 8 0	3 4 6	3 2 3	3 0 6	2 14 0	2 2 6
$16'' \times 16'' \times 18''$	3 8 0	3 0 0	3 3 0	3 0 0	3 0 0	2 12 6	2 15 0	2 6 0

(2) We do not market 3-ply board.

26. The principal upcountry markets for tea chests can be put into 4 districts—

(1) Upper Assam—

(a) Dibrugarh District.

(b) Tinsukia District.

(c) Tezpur District.

(2) Lower Assam—

(a) Sylhet District.

(3) The Dooars District.

(4) The Darjeeling District.

The freight from our Factory to these districts is as under:—

(1) Upper Assam—

	$19'' \times 19'' \times 24''$	$19'' \times 19'' \times 22''$	$18'' \times 18'' \times 20''$	$16'' \times 16'' \times 20''$	$16'' \times 16'' \times 18''$
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
(a)	0 1 11	0 1 10	0 1 8	0 1 7	0 1 6
(b)	0 3 4	0 3 2	0 2 11	0 2 4	0 2 0
(c)	0 3 3	0 3 2	0 2 16	0 2 6	0 2 4

(2) Lower Assam (Sylhet District)—

Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
0 5 5	0 4 11	0 4 5	0 3 10	0 3 5

(3) The Dooars District—

Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
0 6 6	0 6 4	0 5 6	0 4 10	0 4 5

(4) The Darjeeling District—

Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
0 7 9	0 7 2	0 6 7	0 5 6	0 5 0

The freight from Calcutta to these districts is, we believe, as under:—

(1) Upper Assam—

(a) Dibrugarh District—

	$19'' \times 19'' \times 24''$	$19'' \times 19'' \times 22''$	$18'' \times 18'' \times 20''$	$16'' \times 16'' \times 20''$	$16'' \times 16'' \times 18''$
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Despatch Service	0 3 10	0 3 7	0 3 4	0 2 6	0 2 3
Cargo	0 2 7	0 2 5	0 2 2	0 1 9	0 1 6

(b) Tinsukia District—

	$19'' \times 19'' \times 24''$	$19'' \times 19'' \times 22''$	$18'' \times 18'' \times 20''$	$16'' \times 16'' \times 20''$	$16'' \times 16'' \times 18''$
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Despatch Service	0 4 6	0 4 2	0 3 11	0 3 1	0 2 9
Cargo	0 3 4	0 3 2	0 2 11	0 2 4	0 2 0

(c) Tinsukia District—

	$19'' \times 19'' \times 24''$	$19'' \times 19'' \times 22''$	$18'' \times 18'' \times 20''$	$16'' \times 16'' \times 20''$	$16'' \times 16'' \times 18''$
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Despatch Service	0 3 4	0 3 2	0 2 11	0 2 4	0 2 0
Cargo	0 2 0	0 1 10	0 1 8	0 1 5	0 1 2

(2) Lower Assam (Sylhet District)—

	$19'' \times 19'' \times 24''$	$19'' \times 19'' \times 22''$	$18'' \times 18'' \times 20''$	$16'' \times 16'' \times 20''$	$16'' \times 16'' \times 18''$
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	0 3 10	0 3 7	0 3 4	0 2 6	0 2 3

(3) The Dooars District—

	$19'' \times 19'' \times 24''$	$19'' \times 19'' \times 22''$	$18'' \times 18'' \times 20''$	$16'' \times 16'' \times 20''$	$16'' \times 16'' \times 18''$
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	0 2 11	0 2 9	0 2 5	0 2 0	0 1 9

(4) The Darjeeling District—

	$19'' \times 19'' \times 24''$	$19'' \times 19'' \times 22''$	$18'' \times 18'' \times 20''$	$16'' \times 16'' \times 20''$	$16'' \times 16'' \times 18''$
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	0 6 8	0 6 4	0 5 10	0 4 7	0 4 0

27. We do not deal in this market at present.

28. We have no Agents for the disposal of our boxes, all sales being carried out by the Managing Agents at no extra remuneration.

Equipment.

29. (1) Yes, we consider our Mill is sufficiently large as an economic unit of production to ensure economy although of course our costs will fall on a larger outturn.

(2) With prices as they are to-day due to foreign dumping, we consider 500,000 chests per annum is a fair figure to take.

30. (1) The total capital expenditure on fixed Assets at 30th September 1926 amounts to Rs. 30,87,283-1-2 made up as follows:—

Capital Expenditure.	Veneer Mills.	Meckla Mills.	Other (closed) Mills.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Block . . .	...	1,000 0 0	33,467 15 9	34,467 15 9
Machinery and Plant	11,46,512 3 5	2,67,314 10 2	3,89,203 7 0	18,03,060 4 7
Pucca Buildings . .	3,42,184 4 3	77,404 8 11	1,38,234 2 4	5,57,822 15 6
Kutchia . . .	24,125 13 1	5,349 9 0	14,539 12 3	44,015 2 4
Tramways . . .	2,28,983 8 5	34,782 15 6	8,322 12 0	2,72,089 3 11
Roads and Bridges	...	2,790 6 0	3,855 2 0	6,645 8 0
Motor Boats and Launches.	10,300 0 0	1,51,500 0 0	32,379 11 7	1,94,229 11 7
Country Boats . .	...	655 15 9	147 14 6	803 14 3
Motor Cars . . .	2,801 4 0	...	2,500 0 0	5,301 4 0
Motor Lorry . . .	...	...	5,500 0 0	5,500 0 0
Furniture . . .	11,260 11 6	1,994 8 9	4,812 2 3	18,067 6 6
Live Stock . . .	45,000 0 0	85,000 0 0	15,279 10 9	1,45,279 10 9
TOTAL . . .	18,11,167 12 8	6,27,872 10 1	6,48,242 10 5	30,87,283 1 2

(2) Out of this expenditure of Rs. 30,87,283-1-2 the expenditure on Plant and Machinery amounts to Rs. 24,26,264-1-1, made up as follows:—

—	Veneer Mills.	Meckla Mills.	Other (closed) Mills.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Machinery and Plant	11,46,512 3 5	2,67,314 10 2	3,89,203 7 0	18,03,060 4 7
Tramways . . .	2,28,983 8 5	34,782 15 6	8,322 12 0	2,72,089 3 11
Motor Boats and Launches.	10,300 0 0	1,51,550 0 0	32,379 11 7	1,94,229 11 7
Country Boats . .	...	655 15 9	147 14 6	803 14 3
Motor Cars . . .	2,801 4 0	...	2,500 0 0	5,301 4 0
Motor Lorry . . .	...	...	5,500 0 0	5,500 0 0
Live Stock . . .	45,000 0 0	85,000 0 0	15,279 10 9	1,45,279 10 9
TOTAL . . .	14,83,596 15 10	5,39,333 9 5	4,53,333 7 10	24,26,264 1 1

The percentage of Capital Expenditure on Fixed Assets (1) incurred on Plant and Machinery (2) is as follows:—

	Per cent.
(1) Veneer Mills	78.91
(2) Meckla Mills	85.9
(3) Other (closed) Mills	70.53
(4) All Mills	78.6

31. Our Veneer Plant consists of all the usual machines necessary to run an economic veneer factory; the plant is driven by an 180 H.P. Marshall Engine and steamed by 7,500 lbs. steam Babcock and Wilcox boilers, one being always in use and one kept as a spare.

A Browett and Lindley High Speed is kept as a reserve.

The machines which were purchased from the Coe Manufacturing Company in America are as follows:—

- 3 Veneer Peelers or Lathes,
- 5 Power Clippers,
- 1 Automatic Dryer,
- 3 Glue Mixers,
- 2 Glueing Machines,
- 2 Multiple Edging Machines,
- 1 Drag Saw,
- 1 Core Saw,
- 1 Multiple Saw Machine for Battens,
- 2 Planing Machines,
- 1 Electric Crane,
- 1 Knife Grinding Machine,
- 1 Trade Mark Printing Machine,
- 1 Sanding Machine,
- and a complete Work Shop.

These machines were brought into use in May 1922. In our Shook Mills we have 4 Ransome's Band Saw Machines and the Circular, Cut off and Planing Machines.

32. Yes, provided we do not have to meet "cut throat" competition.

33. (a) No, all the machinery is in first class order.

(b) If additional sale of boxes up to 5 lakhs was assured, the following machines would be added immediately:—

- (1) An Automatic Dryer,
- (2) 2 Multiple Edging Machines,
- (3) 1 Cross Cut Saw,
- (4) 1 Batten Machine,
- (5) 1 Planer.

Foreign Competition.

34. Most of the ply wood with which we have to compete is the surplus from Sweden, Finland; we believe that these tea shooks are actually imported into this country by British Firms.

35. (1) (a) This is an extremely difficult question to answer because there does not seem to be any fixed rate for any size of box in any particular year. For instance one might be able to meet foreign competition at any firm with a quotation of Rs. 3-6 and yet find, when quoting the same rate at another firm, that one was several annas over our competitors rates; we

give below however what we consider a fair average though in each year we have had to meet lower prices:—

	Rs. A. P.		Rs. A. P.
1925	3 13 9	to	3 8 6
1926	3 3 0	to	2 14 0
1927	2 15 0	to	2 6 6

N.B.—We came into actual contact with this cut rate of Rs. 2-6-6.

We are unable to give the competitive rates for the smaller sizes.

(b) About one anna per chest.

(c) 15 per cent.

(2) We do not at present compete in this market.

36. It is difficult to produce evidence in support of this statement though our experience over the past few years leaves no doubt in our mind that importers of foreign chests have done their best to kill the indigenous industry. In 1922 when the Surma Valley Saw Mills were endeavouring to sell 3-ply chests for rubber in Rangoon their salesman was met with "You will do no good over here, a certain firm has instructions from London to underquote any price which you quote"; and again as recently as September 1926 our salesman was placed in the position of having to exact a promise from a buyer, before a quotation was given, that our rate would not be cabled to London; this was necessary because he had been told that a London Firm had cabled out that they would underquote by 2 annas any price proffered by this Company.

Over the last 2 years both here and in London we have quoted a price which we have been advised is a competitive one, only to find a few days later that our competitors had reduced their quotations.

37. We do not know.

38. We do not know.

39. (a) No, we think that an ordinary market quotation for a 19"×19"×24" is to-day Rs. 3-7 to Rs. 3-10 yet, as we have already stated, we have been in competition with a rate of Rs. 2-13-6. Special discounts are most certainly offered. We know that one firm of Importers offers a special discount provided a Tea Firm will place their entire order with them; indeed this lost us an order last year. Again we have heard that another Importer promises a special discount if the order is repeated in the following year.

Enclosure 1.

MECKLA MILLS.

Costing statement for the month of June 1926.

	Rs. A. P.
To European Establishment	1,350 0 0
To Indian Establishment	724 15 6
To Ghat Agency expenses	50 0 0
To Timber for boxes	8,009 10 2
To Royalty	1,649 0 6
To Mills expenses	3,045 2 8
To Repairs and Renewals	1,161 14 11
To Land rent and taxes	20 1 11
To Medical charges	458 15 0
To Freight on stores	59 3 6
To Leave and subsistence allowance	25 3 3
To Motor boat upkeep	54 12 6
To Live Stock upkeep	454 11 3
To General charges	152 12 6
To Law charges	16 0 0
To Transport charges	687 13 0
TOTAL	17,920 4 8

Proportion expenses of—

8,308 tea boxes, manufactured, Rs. 8,363-3-9, average per box Re. 1-0-1.

2,038 Calcutta match boxes, manufactured, Rs. 5,226-11-10, average per box Rs. 2-9-0.

1,839, Dhubri match boxes, manufactured, Rs. 3,733-6-2, average per box Rs. 2-0-7.

8 Tons 3 cubic feet soft wood planks, manufactured, Rs. 451-5-9, average per ton Rs. 56.

1 Ton 14·7 cubic feet hard wood timber, manufactured, Rs. 145-9-2, average per cubic feet Rs. 2-4-0.

Costing statement for the month of July 1926.

	Rs. A. P.
European Establishment	1,350 0 0
Indian Establishment	725 5 0
Ghat Agency expenses	50 0 0
Timber for boxes	4,243 9 0
Royalty	2,013 7 9
Mills expenses	3,511 2 10
Repairs and Renewals	775 14 1
Medical charges	1,791 15 0
Freight on Stores	77 12 0
Transport charges	531 14 9
Leave and subsistence allowance	23 15 9
Motor Boat upkeep	30 8 0
Live stock upkeep	463 12 0
General charges	223 0 0
Law charges	16 0 0
Land rent and taxes	20 1 11
TOTAL	15,848 6 1

Proportion expenses of—

8,725 tea boxes, manufactured, Rs. 7,053-3-0, average per box As. 14-1.

1,440 Calcutta match boxes, manufactured, Rs. 2,931-11-11, average per box Rs. 2-0-6.

2 tons 17 cubic feet hard wood, converted, manufactured, Rs. 293-2-10 average per cubic feet Rs. 2-8-1.

136 tons 43 cubic feet soft wood planks covered, Rs. 5,570-3-7, average per ton Rs. 40-15-4.

Costing statement for the month of August 1926.

	Rs.	A.	P.
European Establishment	1,350	0	0
Indian Establishment	737	12	6
Ghat Agency expenses	50	0	0
Timber for boxes	11,712	3	7
Royalty	1,258	4	3
Mills expenses	4,155	1	1
Repairs and Renewals	736	7	10
Freight on Stores	112	10	6
Medical charges	355	14	9
Transport charges	913	5	9
Leave and subsistence allowance	33	3	9
Motor Boat upkeep	30	9	6
Live stock upkeep	588	0	6
General charges	146	13	9
Law charges	16	0	0

TOTAL . 22,196 7 9

Proportion expenses of—

- 2,142 tea boxes, manufactured, Rs. 1,988-8-0, average per box As. 14-10.
 2,752 Calcutta match boxes, manufactured, Rs. 8,256, average per box Rs. 3.
 325 Dhubri match boxes, manufactured, Rs. 426-13-8, average per box Re. 1-5-0.
 329 veneer boxes, manufactured, Rs. 426-13-8, average per box Re. 1-4-9.
 38 tons 35·7 cubic feet hard wood planks, converted, Rs. 4,567-13-5, average per cubic feet Rs. 2-5-8.
 115 tons 12·8 cubic feet soft wood planks, converted, Rs. 6,530-7-0, average per ton Rs. 56-12-0.

Costing statement for the month of September 1926.

	Rs.	A.	P.
European Establishment	1,350	0	0
Indian Establishment	714	11	0
Ghat Agency expenses	50	0	0
Timber for boxes	5,945	6	0
Royalty	1,150	4	0
Mills expenses	5,185	2	11
Repairs and Renewals	926	1	7
Coolie account	10	8	0
Medical charges	116	1	3
Freight on Stores	90	11	6
Transport charges	1,178	6	3
Leave and subsistence allowance	44	3	6
Motor Boat upkeep	109	2	0
Live stock upkeep	356	1	9
General charges	566	1	3
Law charges	16	0	0
Bad debts	742	8	0

TOTAL . 18,551 5 0

Proportion expenses of—

- 5,612 tea boxes, manufactured, Rs. 5,387-11-6, average per box As. 15-4.
 1,242 Calcutta match boxes, manufactured, Rs. 2,794-8-0, average per box Rs. 2-4-0.
 805 Dhubri match boxes, manufactured, Rs. 1,408-12-0, average per box Re. 1-12-0.
 2,827 veneer packing cases, manufactured, Rs. 2,827-0-0, average per case Re. 1.
 18 tons 25·8 cubic feet hard wood, manufactured, Rs. 1,965-10-0, average per cubic feet Rs. 2-2-0.
 73 tons 22·1 cubic feet soft wood, manufactured, Rs. 4,167-11-6, average per ton Rs. 56-12-0.

*MECKLA SAW MILLS.**Costing statement for the month of October 1926.*

	Rs.	A.	P.
European Establishment	1,400	0	0
Indian Establishment	701	2	3
Ghat Agency expenses	50	0	0
Timber for boxes	5,794	1	0
Royalty	1,491	2	0
Mills expenses	2,847	5	0
Repairs and Renewals	1,166	13	6
Land rent and taxes	20	1	11
Medical charges	253	8	0
Freight on Stores	67	3	9
Transport charges	539	10	9
Leave and subsistence allowance	37	11	6
Motor boat upkeep	91	6	3
Live stock upkeep	372	6	9
General charges	115	12	0
Law charges	16	0	0

TOTAL . 14,964 4 8

- 12,112 tea boxes, manufactured, proportion expenses Rs. 10,409-13-4, average per box As. 13-9.
 605 match boxes, manufactured, proportion expenses Rs. 1,301-3-10, average per box Rs. 2-2-5.
 34 tons 32·4 cubic feet hard wood manufactured, proportion expenses Rs. 3,023-15-3, average per cubic feet Re. 1-11-11.
 4 tons 1·9 cubic feet soft wood manufactured, proportion expenses Rs. 229-4-3, average per ton Rs. 56-12-0.

Costing statement for the month of November 1926.

	Rs.	A.	P.
European Establishment	1,400	0	0
Indian Establishment	712	14	9
Ghat Agency expenses	50	0	0
Timber for boxes	8,961	15	9
Royalty	837	14	0
Mills expenses	2,502	0	11
Repairs and Renewals	1,332	13	1
Land rent and taxes	20	1	11
Medical charges	411	15	6
Freight on Stores	166	12	9
Transport charges	671	2	6
Motor boat upkeep	65	3	9
General charges	260	2	6
Law charges	16	0	0
TOTAL	17,409	1	5

Proportion expenses of—

- 2,130 tea boxes, manufactured, Rs. 2,899-14-8, average per box Re. 1-5-9.
 120 match boxes, manufactured, Rs. 362-7-9, average per box Rs. 3-0-4.
 7,098 veneer packing cases, manufactured, Rs. 12,318-2-11, average per case Re. 1-11-9.
 1 ton hard wood planks, manufactured, Rs. 90-3-6, average per cubic feet Re. 1-12-10.
 16 tons 5-2 cubic feet soft wood planks, manufactured, Rs. 1,738-5-5, average per ton Rs. 107-15-0.

Costing statement for the month of December 1926.

	Rs.	A.	P.
European Establishment	1,400	0	0
Indian Establishment	719	12	6
Ghat Agency expenses	50	0	0
Timber for boxes	6,349	14	3
Royalty	644	6	6
Mills expenses	2,198	5	9
Repairs and Renewals	794	10	3
Land rent and taxes	20	1	11
Coolie	9	15	6
Medical charges	346	13	0
Freight on Stores	193	15	3
Transport charges	122	10	5
Motor boat upkeep	35	1	6
General charges	196	2	2
Law charges	16	0	0
TOTAL	13,097	13	0

- 2,761 tea boxes, manufactured, proportion expenses Rs. 4,365-15-0, average per box Re. 1-9-3.
 490 match boxes, manufactured, proportion expenses Rs. 1,940-6-8, average per box Rs. 3-15-4.
 1,781 veneer boxes, manufactured, proportion expenses Rs. 4,851-0-8, average per box Rs. 2-11-6.
 464-3 cubic feet hard wood converted, proportion expenses Rs. 1,940-6-8, average per cubic feet Rs. 4-2-10.

Costing statement for the month of January 1927.

	Rs.	A.	P.
European Establishment	1,400	0	0
Indian Establishment	715	12	0
Timber for boxes	7,200	8	9
Ghat Agency expenses	50	0	0
Royalty	673	13	6
Mills expenses	2,371	7	3
Repairs and Renewals	1,415	10	3
Land rent and taxes	20	1	11
Medical charges	333	15	9
Freight on Stores	90	12	0
Transport charges	831	3	3
Motor boat upkeep	34	11	0
General charges	193	14	6
Law charges	16	0	0
TOTAL	15,347	14	2

- 4,482 tea boxes, manufactured, proportion expenses Rs. 7,673-14-10, average per box Re. 1-11-3.
 1,771 match boxes, manufactured, proportion expenses Rs. 7,646-15-4, average per box Rs. 4-4-10.
 13-5 cubic feet hard wood, manufactured, proportion expenses Rs. 27-0-0, average per cubic feet Rs. 2.

Costing statement for the month of February 1927.

	Rs.	A.	P.
To European Establishment	1,400	0	0
To Indian Establishment	712	7	3
To Ghat Agency expenses	50	0	0
To Timber for boxes	7,255	8	9
To Royalty	290	0	0
To Mills expenses	2,799	6	5
To Repairs and Renewals	1,515	15	0
To Medical charges	384	11	0
To Freight on Stores	149	11	3
To Transport charges	614	16	0
To General charges	424	12	9
To Law charges	16	0	0
TOTAL	15,613	2	6

5,016 tea boxes, manufactured, proportion expenses Rs. 11,709-6-0,
average per box Rs. 2-5-4.
818 match boxes, manufactured, proportion expenses Rs. 3,903-12-5,
average per box Rs. 4-8-5.

Costing statement for the month of March 1927.

	Rs.	A.	P.
European Establishment	1,400	0	0
Indian Establishment	710	11	3
Ghat Agency expenses	50	0	0
Timber for boxes	945	0	6
Royalty	679	11	3
Mills expenses	1,799	6	9
Repairs and Renewals	1,836	0	9
Land rent and taxes	20	1	11
Coolie account	0	10	0
Medical charges	454	9	6
Freight on Stores	170	10	9
Transport charges	1,150	15	9
Motor boat upkeep	79	12	9
General charges	142	0	3
Law charges	16	0	0
TOTAL	9,455	11	5

7,737 tea boxes, manufactured, proportion expenses Rs. 9,399-15-5,
average per box Re. 1-3-3.
2 tons 32.5 cubic feet soft wood, manufactured, proportion expenses
Rs. 145-12-0, average per ton Rs. 55.

Costing statement for the month of April 1927.

	Rs.	A.	P.
European Establishment	1,400	0	0
Indian Establishment	728	12	6
Ghat Agency expenses	50	0	0
Timber for boxes	10,428	10	0
Royalty	562	12	6
Mills expenses	3,526	3	5
Repairs and Renewals	871	15	1
Land rent and taxes	20	1	11
Coolie account	12	2	0
Medical charges	361	8	0
Freight on Stores	79	12	6
Transport charges	1,396	2	0
Motor boat upkeep	66	7	0
General charges	106	1	0
Law charges	16	0	0
TOTAL	19,626	7	11

13,745 tea boxes, manufactured, proportion expenses Rs. 17,464-14-9,
average per box Re. 1-4-4.
730 match boxes, manufactured, proportion expenses Rs. 1,837-2-4,
average per box Rs. 2-8-3.
154.3 cubic feet hard wood, converted, proportion expenses
Rs. 324-6-10, average per cubic feet Rs. 2-1-8.

Costing statement for the month of May 1927.

	Rs.	A.	P.
European Establishment	1,400	0	0
Indian Establishment	731	4	6
Ghat Agency expenses	50	0	0
Timber for boxes	7,054	2	1
Royalty	1,264	0	9
Mills expenses	3,474	0	7
Repairs and Renewals	676	13	0
Land rent and taxes	20	1	11
Medical charges	444	3	6
Freight on Stores	68	4	9
Transport charges	103	10	2
Motor boat upkeep	54	11	6
General charges	189	1	0
Law charges	16	0	0
TOTAL	15,546	5	9

9,429 tea boxes, manufactured, proportion expenses Rs. 8,261-11-0,
average per box As. 14.
3,293 match boxes, manufactured, proportion expenses Rs. 5,979-5-2,
average per box Re. 1-13-0.
111 veneer packing cases, manufactured, proportion expenses
Rs. 109-7-9, average per case As. 15-9.
15 tons 28.5 cubic feet hard wood, converted, proportion expenses
Rs. 1,195-13-10, average per cubic feet Re. 1-8-5.

VENNER MILLS.

Costing statement from June 1926 to May 1927.

Particulars.	June 1926.	July 1926.	August 1926.	September 1926.	October 1926.	November 1926.	December 1926.	January 1927.	February 1927.	March 1927.	April 1927.	May 1927.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Timber cost per box.	0 7 8	0 7 6	0 6 9	0 7 0	0 7 8	0 7 2	0 9 3	0 6 9	0 7 9	0 7 4	0 8 6	0 7 5
Panel " "	0 10 2	0 10 6	0 10 2	0 10 1	0 10 4	0 11 3	0 12 4	0 10 0	0 11 10	0 9 11	0 10 7	0 11 7
Batten " " set.	0 1 2	0 0 11	0 0 10	0 1 0	0 0 8	0 0 10	0 0 9	0 0 10	0 0 11	0 0 9	0 0 10	0 0 10
Packing " " box.	0 2 1	0 2 3	0 1 9	0 4 7	0 2 0	0 1 7	0 2 5	0 2 2	0 3 11	0 1 9	0 1 10	0 2 3
Despatching " "	0 0 8	0 0 4	0 0 7	0 0 8	0 0 10	0 0 5	0 0 6	0 0 7	0 0 5	0 0 5	0 0 4	0 0 7
TOTAL	1 5 9	1 5 6	1 4 1	1 7 4	1 5 6	1 5 3	1 9 3	1 4 4	1 8 10	1 4 2	1 6 1	1 6 8

(6) Further representation dated the 17th August 1927.

In continuation of our written and oral evidence, we beg to lay before you a proposal addressed to the Secretary to the Government of India, Commerce Department, in our first application for an investigation by your Board the present condition of the tea box industry.

From figures now submitted, it will be seen that on an outturn of 5 lakhs of boxes the average cost per box (all sizes) amounts to Rs. 3-0-0-9; it is estimated that this amount of Rs. 3-0-0-9 will enable the Company to pay a dividend of 10 per cent.

It will also be seen that to obtain an average selling rate of Rs. 3-0-0-9 it is necessary to sell the standard 19" x 19" x 24" box at Rs. 3-3-0.

It is probably true to say that the imported box on account of conservatism is somewhat more popular than the Indian made box and this is likely to remain an important factor for several years to come; to enable this prejudice to be overcome we consider that this company must be in a position to sell at annas 5 under the imported box, that is the imported box must sell at Rs. 3-8-0.

We do not consider that this is an unreasonable statement to make and further we do not think that it is likely to be a serious burden on the tea trade, because we are confident that if competition from mills in India cease to exist, prices would rise to a figure of Rs. 3-8-0.

In support of this statement we would draw your attention to prices ruling in Colombo to-day for a tea box 19" x 19" x 24" and for a rubber box 19" x 19" x 24" in Rangoon.

This tea box is selling in Colombo, where there is no import duty, at Rs. 3 Cents 20 less 5 per cent. = Rs. 3-0-7 (for larger quantities slightly less). If one added a 15 per cent. import duty this would amount to Rs. 3-7-10 against the current price in Calcutta (inclusive of import duty) of Rs. 3-0-8 and Rs. 3-1-6.

A rubber box is selling at Rs. 3-4-0; if one added annas 12 for lead linings, this would amount to Rs. 3-12-0 against the above quoted rate of Rs. 3-0-8 and Rs. 3-1-6.

On this price of Rs. 3-4-0 we would compete and shall certainly endeavour to do so though we have little doubt in our mind that immediately we appear on the market, prices will drop.

When the attitude of the tea trade and the tea box importers first of all compelled us to look for outside assistance in the promotion of sales we endeavoured to find some formula which would benefit both the tea trade and ourselves and our proposal took the line that Government should be requested to remove the then existing export duty of Re. 1-8-0 per 100 lbs. of tea on all teas packed in Indian made boxes, but before our proposal could be considered, the Government of India had decided to remit the export duty and to impose further income tax.

In view of the fact that any increase on the price of the box might be opposed by the industry, we propose for your consideration that the import duty on panels and battens should be remitted and in place of this an export duty be reimposed and that such duty should be refunded to all those who pack their tea in boxes made in India of Indian timbers and that the increased Income tax which was placed on the Tea Industry this year be lightened accordingly.

(7) *Supplementary statements.*

SUPPLEMENTARY STATEMENT No. 1.

Tea Packed in different sizes of boxes.

	Nett weight of tea.
	lbs.
19" x 19" x 24"	120, O. P.
19" x 19" x 22"	110, B. O. P.
18" x 18" x 20"	100, Fannings.
16" x 16" x 20"	90, Dust.
16" x 16" x 18"	80, Dust.

SUPPLEMENTARY STATEMENT No. 2.

Amount remitted to Vencer Mill and Meckla Mill.

	Rs.
Total amount remitted to Vencer Mill from July 1926 to June 1927	2,96,302
Royalty	...
Total amount remitted to Meckla Mill from July 1926 to June 1927	2,08,958
Royalty approximately	30,500
TOTAL .	5,35,760

SUPPLEMENTARY STATEMENT No. 3.

Size of opium boxes.

The size of the 5 ply box is 34½" in length, 26½" in breadth, 14" in depth (inside measurements).

We submit that the specification of this box could be simplified without in any way lessening the strength of the case.

Battens are demanded as per samples submitted; it would be simpler to supply a straight forward batten 1" x 1½".

Nails.—A nail 1½" is not a standard length in this country, a nail 2" or 1½" is easier to obtain.

Fittings.—It is laid down that the fittings (i.e., the tin binding) must be in one piece; it is difficult to obtain a binding of the required length; if the bindings for the length of the chest could be in 2 pieces this would in no way effect the strength of the package; if necessary the 2 pieces could be soldered but this means extra cost.

For your information we attach a copy of the specification.

We estimate the freight for the complete chest from our Works to Ghazipur at Rs. 1-3-3.

Opium 3 Ply Chests.—This specification is a simple one and we have no comments to make.

We estimate the freight from our Works to the Opium Factory at Annas 7.

SUPPLEMENTARY STATEMENT No. 4.

Schedule of Requirements No. 475 for Plywood chests for Benares Opium Agency.

GOVERNMENT OF INDIA.

INDIAN STORES DEPARTMENT.

*For Order No. II.-1766.**Requirements.*

1. Tenderers shall quote for supply and delivery f.o.r. Ghazipur City, Bengal and North-Western Railway of materials for the construction of:—

(i) Three thousand seven hundred provision opium chests constructed of 5-plywood of wooden battens in accordance with the specification contained in Section 2 (i) below, and

(ii) One thousand five hundred chests constructed of 3-plywood and wooden battens in accordance with the specification contained in Section 2 (ii) below.

Specification.

2. (i) *Materials for the construction of provision opium chests of 5-plywood.*—The internal clear finished dimensions of each chest shall be:—

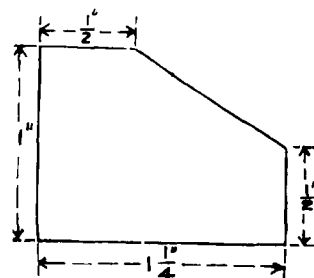
	ft.	in.
Length	2	10½
Width	2	2½
Depth	1	2

and every chest shall be finished to dead size as above. The materials shall be so cut that in no case will the internal finished dimensions be less than those stated and shall not exceed these dimensions by more than ¼".

Material.—The chests will consist of a skeleton of battens and corner pieces nailed to a plywood skin which shall be cut to suit. The skin of sides bottom and top shall be of 5-plywood cut to the above sizes plus the thickness of the wood for either the two long or two short sides, and the top and bottom shall be to correspond, so that when put together the inside measurements will be of the sizes given above. The plywood shall be built up of plies which must not be less than 14 to the inch. All the plies shall be joined together with approved waterproof adhesive free from smell. All timber used shall be thoroughly seasoned and free from weevil or borer holes, large, loose or dead knots, or dry or water rot. It must be free from smell as far as possible, and of a kind which will not be attacked by "Ghun" or weevils. The grain of the work in the outside and centre layers shall in all cases run along the length of the board and not along the width.

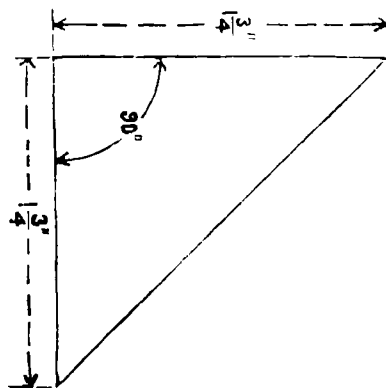
Timber used for battens and corner strengthening pieces shall be of well seasoned mango or other well seasoned wood of approved grade and quality. Battens for the length and width of the chest, with the ends cut at an angle

of 45° and to fit the inside edges of the chest on the bottom and top, shall be of the following section:—



Corner Pieces shall be of the section shown below.

The lengths being shorter by 2" of the height of the chest to allow of the above battens.



The battens and corner pieces will be nailed from the inside and will be made up accordingly.

Binding.

The binding shall be of tin strip of not less than 28 B. W. G. and a width of 1 1/2", on either side of the corners, the edges to be turned over and to be of such a length as to leave the corners of the chest exposed for 1/4" on either side of corners. The tin binding shall be in one piece lengths necessary to the lengths, width and depth of the chest respectively.

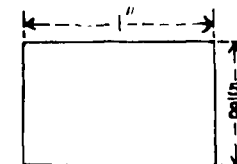
French wire nails.—With gold sound flat heads and of a length of 1 1/4" and not less than 13 B. W. G. to be supplied; the number per chest being 270 nails.

(ii) *Materials for the construction of abkari opium chests of 3-plywood.*—The internal dimensions are:—

	ft.	in.
Length	2	0 3/4
Width	1	8
Depth	0	8

Construction.—The materials for the chest shall consist of three ply skin reinforced externally by timber battens nailed along the edges and bound

with tin strips. The three ply for walls of chest shall be cut exactly to the above sizes plus the thickness of the wood for the two longer or shorter sides the tops and bottoms being to suit. The materials shall be so cut that in no case will the internal finished dimensions be less than those stated and not to exceed these dimensions by more than 1/4". The material shall be to the same specification as for provision chests, with the exception that three plywood thickness of plies not less than 14 plies to the inch will be used. Battens of the length and width of the outside of the chest plus one thickness of the batten to be of the following section:—



to be nailed to the outside of the chest.

Binding.

Binding to be of not less than 28 B. W. G. thickness and a width of 1 1/2" on either side of the corners for the four corner bindings and to extend the full height of the chest. The binding for the bottom and lid of the chest to be 1 1/2" on one side and 1/4" on the other. The edges of the tin binding to be turned over. The tin binding for the tops and lid of the chest to be of such length that the corners will be exposed to a length of half an inch on either side of the corner. The tin bindings to be all in one piece lengths necessary for the length, width and height of the chest respectively.

French wire nails.—Shall have good sound flat heads, and be of a length of 1 1/4" and not less than No. 13 B. W. G. the number per chest being 200. Bifurcated rivets 5/16" long, thickness not less than No. 9 B. W. G. for the four corners to be supplied, the number being 32 per chest.

Inspection and tests.

3. The supply shall not be considered ready for delivery till it has been inspected and has passed such tests as the Inspector may require.

Packing.

4. Materials to be securely packed in shooks and cases. The mode of packing to be stated by the tenderer. The buyer will take no responsibility for damage en route.

SUPPLEMENTARY STATEMENT No. 5.

Outturn of lead.

The Lead that our Mills require on an outturn of 5 lakhs of boxes would be about 450 tons.

The Luralda Mill working slowly will turn out 800 tons per annum and working full out 1,200-1,500 tons per annum.

The Planters Stores Mill will manufacture about 750-1,000 tons but is arranged so as to be able to double this outturn by very little additional machinery.

We were unable to find out the outturn of the Kamarhatty Mills.

SUPPLEMENTARY STATEMENT No. 6.

Amount of Tea Cess collected during the year ended 31st March 1927.

	Rs.	A.	P.
Amount collected	13,23,406	4	4
Less collection charges	8,758	12	5
Total	13,14,647	7	11

Cess rate being Rs. 0-6-0 per 100 lbs.

SUPPLEMENTARY STATEMENT No. 7.

Later Prices of Importers.

During the week ending 13th August 1927 we have met with the following prices for forward business—f.o.b./r. Calcutta:—

	Rs.	A.	P.
19" × 19" × 24" "Sirdang"	3	0	8
„ „ „Regent"	3	1	6

SUPPLEMENTARY STATEMENT No. 8.

Costing Statement on Outturn of 29,463 Boxes in Veneer Mills in June 1927.

	Rs.	A.	P.
Timber cost per box	0	7	7
Panel	0	11	6
Batten	0	0	9
Packing	0	2	4
Despatching	0	0	6
Total	1	6	8

The outturn for June was 27-152.

SUPPLEMENTARY STATEMENT No. 9.

Freight on Steamer for Boxes and Tea.

Freight is paid on gross weight, not nett weight.

SUPPLEMENTARY STATEMENT No. 10.

Percentage of Sales to Various Districts.

	Per cent.
Darjeeling District	4·7
Dibrugarh and Tinsukia	33·5
Tezpur	14·8
Sylhet	27·7
Dooars	19·3
Total	100

SUPPLEMENTARY STATEMENT No. 11.

HEAD OFFICE ESTABLISHMENT.

Cost per Year.

	Rs.
European	13,770
Indian	3,624
Typists	480
Total	19,062

SUPPLEMENTARY STATEMENT No. 12.

Average value of stock of boxes and of Stores and outstandings in Veneer Mills.

	Rs.	A.	P.
The average value of stock of boxes over the year is	1,01,800	14	4
The average value of stores over the year is	70,716	11	0
The average value of Outstandings over the year is	1,66,111	13	4

SUPPLEMENTARY STATEMENT No. 13.

Average price of sales during 1927.

	Rs.	A.	P.
20×20×24	3	12	0
19×19×24	3	4	6
19×19×22	3	2	6
18×18×20	3	1	11
16×16×20	2	9	6
16×16×18	2	8	0
16×16×16	2	6	0
Average selling price all sizes	3	2	1

SUPPLEMENTARY STATEMENT No. 14.

Regarding Rubber Boxes.

Gross weight	224 lbs.
Price quoted	Rs. 3-4-0.
Freight from Mills to Rangoon	Rs. 0-8-6.

There is no Rubber Association in Rangoon.

It will be noted that if the price of Annas twelve be added for linings as in a tea chest the cost amounts to Rs. 4, against the present day price of Rs. 3-0-3.

Copy of telegram from Mr. H. G. Nicolson, Rangoon, to Mr. C. H. Jenner, Calcutta, dated Rangoon, the 11th August 1927.

There is no Rubber Association here. Present price imported boxes rupees three annas four, weight shipped boxes quoted two hundred twenty-four lbs. each.

SUPPLEMENTARY STATEMENT No. 15.

The position of the Company on reconstruction.

If assistance is given we shall ask the Shareholders to approve a reconstruction of the Company on the basis of writing down the Block to the cost of a similar plant at to-day's prices. The position would then be as follows:—

	<i>Veneer Mills.</i>
	Rs.
Block	10,21,414
Working Capital	4,25,000
TOTAL .	14,46,414

We estimate that we can finance this at a cost of 8 per cent. per annum.

	<i>Veneer Mills.</i>
	Rs.
8 per cent. per annum on Rs. 14,46,414 . .	1,15,713
Depreciation at 7½ per cent. per annum .	76,606
TOTAL .	1,92,319

	Rs.
On an outturn of 300,000 boxes a year this represents As. 10-257 a box. Additional Working Capital to turn out 500,000 boxes a year Rs. 1,50,000 @ 6 per cent.	9,000
	1,92,319
TOTAL .	2,01,319

On an outturn of 500,000 boxes a year this represents As. 6-442 a box.

SUPPLEMENTARY STATEMENT No. 16.

Estimated cost of outturn of 3,00,000 and 5,00,000 boxes.

	3,00,000 boxes Cost per box.	Estimated cost on 5,00,000 boxes Cost per box.	Estimated cost on 5,00,000 boxes Forward position.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Timber	0 7 8·2	0 7 4·8	0 5 9·1
Glue	0 5 1·6	0 5 1·6	0 4 1·6
Packing	0 2 3·4	0 2 3·4	0 2 3·4
Power and Fuel	0 0 7	0 0 4·1	0 0 4·1
Labour and Stores	0 2 8·5	0 1 10·7	0 1 10·2
Supervision	0 2 2·7	0 1 8	0 1 8
Repairs and Renewals	0 1 7·9	0 1 2·4	0 1 2·4
Miscellaneous	0 1 2·5	0 0 9·6	0 0 9·6
TOTAL .	1 7 5·8	1 4 8·6	1 2 0·4
Fittings and Linings	1 3 3	1 3 3	1 3 3·0
Commission and Insurance	0 1 9	0 1 1	0 1 1·0
Calcutta charges	0 1 0	0 0 7	0 0 7·0
Overhead charges	0 10 3·08	0 6 5·3	0 6 5·3
TOTAL .	3 7 8·88	3 0 0·9	2 13 4·7

SUPPLEMENTARY STATEMENT No. 17.

Details of extra Calcutta charges.

	300,000	500,000
Charges General	2,600	2,600
Stamps and telegrams	1,200	1,500
Stationery and Printing	700	1,000
Motor Car Charges	1,000	1,000
Travelling	1,000	1,000
Managing Agents	9,000	9,000
Directors Fees	2,400	2,400
Auditors Fees	900	900
Debenture Trustee fee	500	500
TOTAL .	19,300	19,900

	As. p.
On 3 lacs	1 0
On 5 lacs	0 7
Commission and Insurance	1 1

SUPPLEMENTARY STATEMENT No. 18.

Timber costs.

	A. (On 500,000 outturn at present. per c. ft. As. p.	B (On 500,000 Forward position. per c. ft. As. p.
Cost of extraction and floating to Mill	3 5.0	3 0.0
Royalty	6.0	1 6.0
From Ghat to Mill	4.0	4.0
Additional Charges	1 11.1	8.0
	<u>6 2.1</u>	<u>5 6.0</u>

A.—Details of additional charges—

	As. p.
Elephant Upkeep and Rest Camp	1 2.0
Camp Building	1.3
Staff	6.0
Cano	0.9
Inspection Lines cutting	0.4
Motor Car and Transport	0.5
TOTAL	<u>1 11.1</u>

B.—Details of additional charges—

	As. p.
Elephant Rest Camp	0 2.0
European Staff at Rs. 700 per mensem	0 3.6
Indian Staff at Rs. 200 per mensem	0 0.9
Cane	0 0.9
Motor Car and Transport	0 0.5
Inspection and Line cutting	0 0.4
	<u>0 8.3</u>

A.—Per box at 1.2 cubic foot per box annas 7 pies 4.8 per cubic foot.

B.—Per box at 1.2 cubic foot per box annas 6 pies 2.3 per cubic foot.

Less 7 per cent. on reduced cutting annas 5 pies 9.1.

SUPPLEMENTARY STATEMENT No. 19.

Statement showing percentage of sales and varying estimated sale prices.

Size of Box.	Percentage of Sales.	Per box. Rs. A. P.	Per box. Rs. A. P.	Per box. Rs. A. P.	Per box. Rs. A. P.	Per box. Rs. A. P.	Per box. Rs. A. P.	Per box. Rs. A. P.
20×20×24	1 per cent	3 10 0	3 9 0	3 8 0	3 7 0	3 6 0	3 4 0	3 0 0
19×19×24	50 "	3 6 0	3 5 0	3 4 0	3 3 0	3 2 0	3 0 0	2 13 0
19×19×22	30 "	3 4 0	3 3 0	3 2 0	3 1 0	3 0 0	2 14 0	2 11 0
18×18×20	5 "	2 15 0	2 15 0	2 14 0	2 13 0	2 12 0	2 10 0	2 9 6
16×16×20	3 "	2 10 0	2 9 0	2 8 0	2 8 0	2 8 0	2 7 0	2 6 0
16×16×18	10 "	2 8 0	2 7 0	2 6 0	2 6 0	2 6 0	2 5 0	2 4 0
16×16×16	1 "	2 6 0	2 5 0	2 4 0	2 4 0	2 4 0	2 4 0	2 3 0
Average Sale price per box	100 "	3 3 2	3 2 3	3 1 3	3 0 8	2 15 6	2 13 7	2 11 1

SUPPLEMENTARY STATEMENT No. 20.

Revised estimate of the present day cost of buildings and plant.

10. What do you estimate would be the present day cost under the heads (a) buildings and (b) plant and machinery, of erecting a factory having the same output as your present factory? How does the figure compare with the block value of your present factory under the same heads, and would the operating cost of a new factory established now be greater or smaller than yours?

Reply.—(1) The present day cost for (a) Buildings and (b) Plant and Machinery for a factory having the same output as the present factory would be Rs. 10,30,635 made up as follows:—

	Rs.	Rs.
(a) Buildings—		
Housing accommodation, hospital, etc., as per statement attached	1,25,000	
Factory Sheds, etc.	1,75,000	3,00,000
(b) Plant and Machinery—		
2 Winches	6,000	
2 Cross Cut Saws	2,826	
3 Lathes	23,200	
5 Power Clippers	14,533	
2 Dryers	1,86,700	
2 Glue Mixers	1,413	
2 Glue Spreaders	5,333	
50 Press Trollies	6,000	
Hydraulic Press	12,000	
50 Clamps	4,000	
2 Multiple Edging Machines	9,600	
Core Saw Machine	2,500	
Batten Machine	5,000	
Planers	7,000	
Trade Mark Machine	1,333	
Knife Grinding Machine	2,000	
Trolley Lines in and near factory	10,000	
One Engine	16,000	
Boilers	45,000	
Electric Crane	6,000	
Electric Light Engine	9,000	
3 Pumps	10,000	
2 Locomotive Engines	15,000	
30 Trollies	9,000	
Work Shop Machines	10,000	
Shafting }		
Pulleys }	20,000	
Belts }		
Elephants 30 @ 300 each	90,000	
2 Motor Launches	20,000	
Tramline 3 miles	45,000	
Vats	20,000	
Clearing Site	25,000	
Erection charges 20 per cent. on Rs. 3,56,375	71,275	
Import Duty 2½ per cent. on Rs. 3,56,375	8,919	
Freight on 300 Tons Calcutta/Site	11,000	
		<u>7,30,000</u>
TOTAL	10,30,635	

Rs.

Summary—

(a) Buildings	3,00,000
(b) Plant and Machinery	7,30,635
	<u>10,30,635</u>

SUPPLEMENTARY STATEMENT No. 21.

Estimated cost of Buildings in detail for a new Veneer Factory.

	Rs.
Four Bungalows	65,000
Hospital and Dispensary, Compounder's Quarters, Doctor's House	25,000
Clerical Staff	10,000
Houses for labour—300 houses	12,000
Forest Quarters	11,000
Office	2,000
TOTAL	<u>1,25,000</u>
	Rs.
Boiler and Engine House	18,000
Main Factory Shed	1,25,000
2 Godowns for stock of boxes	20,000
Workshop	5,000
Stores Godown	7,000
TOTAL	<u>1,75,000</u>

SUPPLEMENTARY STATEMENT No. 22.

Down Freights by steamer and by steamer and rail to Sylhet, Dooars and Darjeeling Districts.

On the Downward Service there are no separate rates for Cargo and Despatch steamer.

SUPPLEMENTARY STATEMENT No. 23.

Price of birch wood.

The prices f.o.b. is 1s. 1d. to 1s. 4d. per cubic foot.

THE ASSAM SAW MILLS AND TIMBER COMPANY, LIMITED.

B.—ORAL.

Evidence of Mr. E. S. TARLTON and Mr. C. H. JENNER recorded at Calcutta on Wednesday, the 10th August 1927.

Introductory.

President.—Before we start the examination, I would like to make a few preliminary remarks about the enquiry and the evidence which we have received so far. We are very much indebted to you, Mr. Tarlton, for the prompt manner in which you have replied to the questionnaire, although the notice we gave you was unavoidably short. This enquiry, which is a small enquiry as compared with some of the enquiries which the Tariff Board has held in the past, is by no means an easy one on account of the numerous and important interests connected with the Tea Chest Industry. There is also a considerable amount of statistical information necessary and the accuracy of the figures is a matter of very great importance. We have received very complete information from you and we have also received similarly complete information from the Assam Railways and Trading Company. The Tea Association has stated clearly the position of the Tea Industry in relation to this enquiry and they have been good enough to promise to send a representative to give evidence before us. So far, we have not received complete information from representatives of the importing houses and the consumers generally, but we hope that in due course they will present the facts and figures bearing on their aspect of the case as completely and fully as you and the Assam Railways and Trading Company have presented the case on behalf of the manufacturers. I observe that in reply to the questionnaire you have given us a considerable amount of material dealing with the Meckla Mill. I think, perhaps, it is necessary to explain that the present enquiry is limited to tea chests in relation to the ply wood industry.

Mr. Tarlton.—As you are aware, Meckla is part of the Assam Saw Mills Company; we wanted you to know this factory formed part of the original company. We quite understand that you are only enquiring into the veneering plant of the company.

President.—Mr. Tarlton, you are the Director of this company, and a Director of Messrs. Bird and Company?

Mr. Tarlton.—I am a Director of this Company and I am a partner of Messrs. Bird and Company.

President.—What is the position of Mr. Jenner?

Mr. Tarlton.—He is the Senior Assistant in charge of the Department.

Uses of ply wood.

President.—Can you give us a complete list of the purposes for which ply wood is used? Throughout you have dealt with tea chests and opium chests.

Mr. Tarlton.—Yes.

President.—But surely there are other purposes for which ply wood is used.

Mr. Tarlton.—Yes.

President.—I think that it would simplify the enquiry if we got on record the purposes for which ply wood is used.

Mr. Tarlton.—We have definitely kept off the purposes for which ply wood is used other than for tea boxes, we have had little experience and the figures we should give would be more or less assumed figures. We suggest the question might be left to the Margherita people who are making it their business to use ply wood for purposes other than tea chests.

President.—I understand that the purposes for which ply wood is used are mainly these: (1) tea chests, (2) aeroplanes, (3) opium chests, (4) panels and other uses and (5) rubber chests. Is the list about complete?

Mr. Jenner.—It is also used for packing cases of all sorts.

Mr. Tarlton.—Also such articles as packing cases, hat boxes, etc., which are slowly coming into the market.

Mr. Jenner.—It is gradually taking the place of ordinary thin timber.

President.—Take the list I have given you in order. About tea chests we have got definite information. As regards aeroplanes, I suppose some special kind of ply wood is required.

Mr. Tarlton.—Particularly high class ply wood must be used in making these. When the Surma Valley Company started their ply wood factory, Government certainly had it in their mind that they would call upon this company to make ply wood for aeroplanes.

Dr. Matthai.—Do you regard that as one of the reasons why the Assam Government took such an interest in the development of the veneer business?

Mr. Tarlton.—No, it was the Member for Commerce that was taking interest in it on behalf of the Government of India.

Dr. Matthai.—So that the authorities in India really thought at the time that there was a possibility of developing the ply wood industry.

Mr. Tarlton.—They were quite definite about it.

President.—Would there be any difficulty in the event of war to your undertaking the manufacture of ply wood?

Mr. Tarlton.—There is nothing difficult in making ply wood for aeroplanes.

President.—That would be really a war measure, would it not?

Mr. Tarlton.—Yes.

President.—I mean to say in ordinary peace times as far as you and the other firms are concerned, there is no particular object in placing any sort of protective duty on the ply wood required.

Mr. Tarlton.—I don't think so.

President.—My point is really that the assistance which would be given to the industry, by placing a protective duty on ply wood for aeroplanes would be so slight that it would not be worth while, is that correct?

Mr. Tarlton.—As we see it to-day, it is very difficult to know how the aeroplane is going to be developed in this country during the next five years. If we are to have large squadrons of aeroplanes out here, naturally one would then begin to look round and say "here is a possibility of using ply wood for aeroplanes."

President.—That is to say, if aeroplanes were built out here.

Mr. Tarlton.—Yes.

President.—That is looking rather far ahead into the future.

Mr. Tarlton.—Yes.

President.—But the amount of 3-ply required for that would not be very considerable.

Mr. Tarlton.—No, of small quantity.

President.—As regards opium chests, are these made of 5-ply boards?

Mr. Jenner.—Both 3-ply and 5-ply boards.

President.—Both?

Mr. Jenner.—Yes.

President.—Could you tell us for what other purposes 5-ply boards are used besides opium chests?

Mr. Tarlton.—No.

President.—I take it that the opium chest is a matter in which you take a considerable interest.

Mr. Tarlton.—Yes.

President.—As regards 5-ply board, is the amount imported considerable? We find no information in the Trade Returns. I thought perhaps you might have investigated the question of the market.

Mr. Jenner.—I don't think that there is much demand at present, but of course it may develop. At home, the table tops, backs and sides of almirahs, etc., are all made of ply wood. For instance, on the new P. & O. boats, which I saw some 2 years ago, all the dining tables were made of 5-ply wood. There is no doubt at all that as India gets used to ply wood, it will be used here for all sorts of furniture work and so supplant teak to a large extent.

Dr. Matthai.—Actually you are not undertaking the manufacture of 5-ply boards?

Mr. Tarlton.—Not at the moment.

Dr. Matthai.—May I take it that things like furniture, aeroplanes and so on, really constitute what may be called high class ply wood work as compared with packing cases, etc.?

Mr. Jenner.—That is hardly so.

Dr. Matthai.—When you have the ply wood industry starting in any country the obvious thing to start on is packing cases because far less skill is required in making it.

Mr. Tarlton.—I would not say, apart from aeroplane work, there is anything superior in the panels used for furniture. After all, it cannot be said that it is high class furniture if it is made of ply wood.

Dr. Matthai.—Take the ordinary question of panelling a room. If you want a fairly presentable kind of panelling obviously it would require a little more care on the part of the manufacturer than in the case of making a tea chest.

Mr. Tarlton.—For panelling purposes you would select a wood that would look well.

Dr. Matthai.—In any case as far as you are concerned you don't foresee any difficulty in your business developing naturally on to the furniture side, assuming, of course, that there is a market for it.

Mr. Tarlton.—Not a bit. The process is just the same. It is only a matter of choosing timbers.

Dr. Matthai.—There is just another point. Supposing there is a development of canning in India—agricultural products, fruits and so on—as a result of the recommendations of the Royal Commission on Agriculture, that is a matter in which ply wood boxes could take the place of tin boxes.

Mr. Tarlton.—Certainly.

Dr. Matthai.—There is some possibility in India along that line.

Mr. Tarlton.—There is, though I have not looked at it from that particular point of view.

President.—The manufacture of panels would be rather a specialist job. You would have to select your wood.

Mr. Tarlton.—Yes, the timber would have to be selected.

President.—You would have to have arrangements for the selection by your customers of a particular kind of timber.

Mr. Tarlton.—Yes.

President.—Would you be able to undertake the manufacture of it on a commercial scale as you are doing in the case of tea chests?

Mr. Tarlton.—Most certainly the process in the factory is the same whether it is for manufacturing tea chests or boards, be they 3-ply, 5-ply or 7-ply.

President.—You will have to select a dozen kinds of wood.

Mr. Tarlton.—I should say, yes.

President.—Then you might find that your orders are smaller.

Mr. Tarlton.—Yes.

President.—Then you might have trees, one half used up and the other half useless.

Mr. Tarlton.—Ply wood timbers can be used and improved by artificial graining. Some of the graining seen on panels in houses and shops is done on common wood.

Mr. Jenner.—There is also another point. If you are going on for high class panelling work, whether it is 3-ply or 5-ply, decorative timber will only be used for the outside ply and ordinary wood inside. For these highly decorative panels, one has to pay a very high price. If this trade develops I can quite see the possibility of our buying super decorative logs, take them to our factory and manufacture them, putting the decorative timber outside and the ordinary timber inside.

Quantity of ply wood imported.

President.—Could you give us any idea as to the amount of ply wood which is imported for panels, furniture and miscellaneous uses of that sort excluding opium chest, rubber chest and ply wood for aeroplanes? When we went to inspect the Assam Railways and Trading Company's factory we gathered that the demand for these at the present time was rather local—for the panelling of bungalows and so on. It seemed that probably this local market would be secured by them whether there was any protective duty on the 3-ply bought for panels or not. There is another point of view too. It is rather important from your point of view that the market for furniture, panelling and so on should increase.

Mr. Tarlton.—Yes.

President.—Supposing for argument's sake we decided to put a protective duty, we would not, by raising the price, be assisting the expansion of the market for this ply wood.

Mr. Tarlton.—I think there is a possibility of extending the market for panels for furniture and railway carriage work.

Dr. Matthai.—What are the parts of a railway carriage for which you think they may be used?

Mr. Tarlton.—The whole of the panelling which you see inside a carriage except the roof. The roof I think is made of pressed fibre or pressed asbestos.

Dr. Matthai.—I have got some figures from the report that were prepared for the Railway Board as to the timber used in railway wagons and carriage work and the analysis of the wood work in railway carriages shows that the wood work that goes into panels is 2½ per cent. of the total. That implies rather a small market. You don't think ply wood would be used for any other parts? The report states roof boards come to 13.5 per cent., but ply wood is out of the question there, is it not?

Mr. Tarlton.—I think there is a possibility of extending the market for ply wood in most cases but whether the railway authorities here think the material which they are using is more economical and keeps the carriage cooler I am not in position to say.

Dr. Matthai.—What about partitions?

Mr. Tarlton.—As far as I can see there is no reason why they should not be of 3-ply, or 5-ply as the case may be.

Dr. Matthai.—Partitions, I notice, form about 13 per cent. of the whole work.

Mr. Tarlton.—If a small percentage of the railway carriages were fitted with 3-ply panels it would amount to a fairly big figure.

Dr. Matthai.—Have you any approximate idea as to what it would work up to?

Mr. Tarlton.—I am trying to obtain figures.

President.—Then take furniture?

Mr. Tarlton.—It is difficult to say what this would amount to.

President.—Supposing the view was accepted and we thought it was not worth while putting an import duty on furniture, is there any kind of distinction between ply board used for furniture and ordinary ply board imported? Can we say for instance "fabricated ply board imported" just as we say fabricated steel of a particular shape, in the sense that it is shaped for a seat or a suit case.

Mr. Tarlton.—If you do that you may have fabricated boards coming in which might later be cut up for tea boxes.

President.—From your point of view you would rather press for protection against all panels either for furniture or for panelling or for other purposes?

Mr. Tarlton.—Yes.

Rubber Chests.

President.—What about rubber chests? You say you have made enquiries in Burma about rubber chests and find that you are under-sold. Can you give us the sizes?

Mr. Jenner.—The same size as the large tea chest, the only difference being that a rubber chest requires no lead lining.

Dr. Matthai.—Are there different sizes?

Mr. Jenner.—Only 19×19×14 I think. We have never had enquiries for any other size.

President.—Anything that would apply to tea chests in the matter of drawback on export and so on would apply to rubber chests?

Mr. Jenner.—Yes.

President.—What would be the amount of rubber contained in these chests?

Mr. Jenner.—We can let you have the figure later.

President.—It is unlikely that as far as companies in India are concerned they would be able to secure that market.

Mr. Jenner.—If they do not use these chests they must bring them out from home.

President.—What I mean to say is that the market would be one which is unlikely to be secured by firms operating in Northern India or Assam owing to the freight.

Mr. Tarlton.—For the Rangoon side these would go *via* the port of Chittagong.

President.—What would be the freight to Rangoon?

Mr. Tarlton.—It would be about 8 annas, but I will verify it and let you know the exact figure.

Dr. Matthai.—8 annas from Chittagong to Rangoon?

Mr. Tarlton.—From Surma Valley to Rangoon.

President.—So that you are not prepared to admit that it is outside the range of your factory?

Mr. Tarlton.—No.

President.—The position then is that if it is decided that a protective duty should be imposed you would press for protection for tea chests, opium chests, ply wood for other purposes and rubber chests but not for aeroplane material?

Mr. Tarlton.—I don't think that we need bring in aeroplane material our application really is for protection *in toto* against imports of ply wood.

Drawback.

President.—Have you any information as to the question of rebate in regard to rubber chests?

Mr. Jenner.—It should be easier for rubber exporters to get a bigger proportionate rebate than the tea industry because in a rubber box there

are only panels and fittings, that is to say, the wooden parts of a rubber chest would be something like 75 per cent. of the whole box whereas in tea chest it is something like 50 to 60 per cent.

Dr. Matthai.—Supposing the tea people are able to make sufficient arrangements for the identification of panels and they get their drawback, obviously the rubber people also will get it. There is no difficulty in the way of the rubber people getting it, is there?

Mr. Jenner.—No.

President.—Can you tell me with regard to rubber whether there is an association corresponding to the Indian Tea Association?

Mr. Jenner.—There is an association in Rangoon, though I don't know the name but I think I can find it out for you.

Claim for Protection.

President.—You apply for 25 per cent. protection either by duty or a corresponding amount of bounty—15 per cent. and 4 annas.

Mr. Jenner.—Yes.

President.—Have you any preference for any particular form of protection?

Mr. Tarlton.—First of all we looked at it from the Tea Trade's point of view; if we are to be protected it would suit the trade for us to have a bounty rather than a tariff. The country's point of view would be a definite "no, to a bounty? If there is to be anything the tea trade must pay for it."

President.—So far as you are concerned, you have no particular preference one way or the other?

Dr. Matthai.—Looking at it from the administrative point of view, supposing we decided to grant protection to this industry and gave it in the shape of a bounty, then is it not likely that new factories which may be started hereafter will also claim bounty and we might let Government in for an indefinite liability.

Mr. Tarlton.—You are certainly doing that. There is no reason why other factories should not start up. Local Governments would reap the benefit from a larger consumption of timber.

Dr. Matthai.—That is perfectly true. If you are taking a sufficiently long view, ultimately the country will be paid back, but I am looking at it as an immediate question of finance. In the second year the Finance Member has got to budget for Rs. 5 lakhs but the next year it may come to Rs. 10 lakhs.

Mr. Tarlton.—That being so whatever has to be found will be fully or partially repaid by others starting up. Supposing a start is made with Rs. 5 lakhs and in the second year it rises to Rs. 10 lakhs; it means much more timber is consumed thus repaying a portion if not all the bounty paid.

President.—That would not help the Central Government.

Mr. Tarlton.—It is keeping money in the country whether it is the Central Government or the Provincial Government.

President.—There might be financial difficulties in the preparation of the budget.

Mr. Tarlton.—That might be so for a time but surely such financial difficulties can be overcome. It would pay Government to get more and more boxes made in this country.

Dr. Matthai.—The Local Governments would certainly benefit but the question is really a smaller one than that, the Assam Government may benefit—but as you know in financial matters there is not very much love lost between the Provincial Governments and the Central Government.

Mr. Tarlton.—But against that if, as we say, the Assam Government found that they have a much larger revenue they will spend that money in developing that country which means that they are becoming more wealthy in

direction. In that case it will give the Government of India every opportunity of saying "well, now it is high time that we paid a little more in central funds."

Dr. Matthai.—There is another point I want to be quite clear about. Is application for the protection of ply wood or tea chests or the ply wood tea chest?

Mr. Tarlton.—For ply wood.

Dr. Matthai.—You are asking for the protection of ply wood.

Mr. Tarlton.—Yes.

Dr. Matthai.—If we found in the course of our enquiry that the price at ply board for purposes other than tea chests is imported into this country is such that with a duty of 15 per cent. you could more or less face competition, there might arise no case for protection at all.

Mr. Tarlton.—The reason for asking for protection for ply wood is not on the ground of protection for the small amounts of ply boards are wanted for purposes other than tea boxes, but the fear that at later date the Customs would have difficulty in applying the tariffs at the aid of experts.

President.—Do you mean the administrative difficulties in the Customs?

Mr. Tarlton.—Yes.

President.—Supposing it is possible to devise some scheme by which no administrative difficulty arises at all and the duty could be assessed on the best without any possibility whatever of allowing wood which should be subject to the duty to come in without the duty being paid, supposing such scheme is possible, would you then press for the protection of ply wood against the tea chests?

Mr. Tarlton.—May I have time to think this over and give a reply to-

Mr. Jenner.—If there is no protection on ply board, there is nothing to stop importers from importing, instead of tea chests, large panels 4' square and using them to tea box sizes in this country.

President.—Supposing we are able to put forward a scheme by which these administrative difficulties do not arise at all.....

Mr. Jenner.—The majority of ply board which comes into this country is the same timber as tea boxes.

President.—What we should like to know is that if we could so arrange the duty could, without any doubt, be assessed on tea chests, would you press for the duty on ply board.

Mr. Tarlton.—Might I reply to that to-morrow?

Dr. Matthai.—If we devised a system by which you got sufficient protection of every bit of ply wood that goes into tea chests imported into the country, you would be satisfied?

Mr. Tarlton.—Yes.

Dr. Matthai.—There may be administrative difficulties. That is another

Mr. Tarlton.—I follow your point. But having met troubles with tariffs in other directions, to my mind it would be very difficult for the legislature to pass machinery to give us a solid protection for ply wood in tea boxes.

Dr. Matthai.—What you are suggesting is that the administrative difficulties might be more serious than we know.

Mr. Tarlton.—Yes.

President.—Take it that there would be no administrative difficulties. I like you to give an answer to this question if, at the back of your mind, you are still remained the idea that these administrative difficulties exist. If there were administrative difficulties, we would give due weight to them, but I should like to have your reply on the assumption that no administrative difficulties would arise.

Mr. Tarlton.—I should like to have time. In the meantime I will try and find out the quantity of wood coming in for purposes other than tea boxes and then I could reply to the question which you have raised to-day.

Dr. Matthai.—You have told us now that the article in respect of which you really want protection is ply wood.

Mr. Tarlton.—Yes.

Dr. Matthai.—May I take it that you don't want necessarily protection for linings and fittings in the tea chests. Suppose we accept your suggestion of a 25 per cent. duty, but we decide not to levy this extra duty on linings and fittings, as far as you are concerned you are not going to be hit by it. You import linings and fittings and it makes no difference to you.

Mr. Tarlton.—Matters are developing so rapidly that in all probability we shall be selling in the next few months a totally indigenous product. We have never imported linings.

Dr. Matthai.—All the lead linings that you buy now are linings which are manufactured in India.

Mr. Jenner.—Yes.

Dr. Matthai.—Are you quite sure?

Mr. Jenner.—They are manufactured at Kamarhatty three or four miles from Calcutta. They are manufactured from pig lead brought from Burma.

Dr. Matthai.—What is the total quantity that you buy in a year taking last year's output of 3 lakhs of boxes?

Mr. Tarlton.—I should have to work this out.

President.—From your point of view you purchase the linings. Whether you buy the Indian made linings or whether you buy imported linings, you purchase them. You merely pack them and send them to the gardens. So as far as you are concerned it is not really part of your business.

Mr. Tarlton.—No.

Mr. Jenner.—There is this point. If you only gave a protective tariff on the panels the big importing houses would be able to put their boxes f.o.b. Calcutta cheaper than they do to-day, because they would not have to pay 15 per cent. on fittings and linings.

Dr. Matthai.—The position is this. The duty of 15 per cent. on fittings and linings at present applies as much to importers of tea chests as to the person who imports only fittings and linings.

Mr. Jenner.—We are not importing.

Dr. Matthai.—The price that you pay will not be lower than the price at which fittings and linings can be imported.

Mr. Tarlton.—That is not so. We always buy our linings and fittings in this country, they are cheaper than the imported linings.

President.—Supposing we put up the duty on linings and fittings to 25 per cent., naturally your Kamarhatty mills would put up their price. You will gain nothing from it.

Mr. Tarlton.—From our point of view we gain nothing.

Mr. Jenner.—It means this that if we are selling our box at Rs. 3-4-0, the importer is selling at Rs. 3-8-0. If you exclude the duty on fittings and linings the importer will be able to put his box on the market at Rs. 3-4-0.

President.—You will also have a reduction in your price.

Dr. Matthai.—Taking this extra duty on fittings and linings it is a heavy burden which is placed on the importer as well as on you. It is an unnecessary burden placed on the tea industry.

Mr. Tarlton.—Yes.

President.—Supposing we measured the need for protection in the usual way by ascertaining your fair selling price and ascertaining the imported price plus landing charges and then we came to the conclusion that it would be necessary to protect the Indian industry that a duty of so many annas

should be imposed. Now if we imposed that simply on the ply wood and not on the fittings—leaving the fittings as they are—would that help you in any way?

Mr. Tarlton.—That would meet our purpose.

President.—That would simplify the procedure.

Mr. Tarlton.—Yes.

President.—In that case the cost of fittings might be omitted.

Mr. Tarlton.—Yes.

Dr. Matthai.—You speak in your representation of some firms starting lead mills.

Mr. Tarlton.—Yes, I referred to them, because it meant that if we bought from them we should have a totally indigenous box. All of their linings are being rolled here. I am speaking of the second mill which has just come into operation.

Dr. Matthai.—Taking the current price of a full size box as Rs. 3-7-0, I take it that the present duty comes to about As. 7.

Mr. Tarlton.—Yes.

Dr. Matthai.—But you are suggesting an addition of As. 4 to it. That means As. 11. Now I take it that the fittings and linings account for about As. 3. Out of the As. 7, As. 3 would represent the duty on fittings and linings.

Mr. Jenner.—Yes.

Dr. Matthai.—Therefore the extent of the protection that you want calculated on the basis of ply wood is As. 8.

Mr. Tarlton.—Exactly.

Dr. Matthai.—As. 8 is the protection that you want for the ply wood.

Mr. Tarlton.—Yes.

Dr. Matthai.—I was looking at it from the point of view of the tea industry. The tea industry is now paying As. 7 by way of duty on chests on every 100 lbs. of tea it is selling. If they are able to make satisfactory arrangements for identification and are able to get the full 3/4ths drawback on the panels, that would mean As. 3 1/4, so that the nett burden on the Tea industry may now be estimated at As. 3 1/4. You are suggesting an extra duty of As. 4 which will raise it to As. 7-6, i.e., if a drawback is allowed.

Mr. Tarlton.—As. 7-6 on 120 lbs. of tea comes to so little.

Dr. Matthai.—The Tea Association has told us that looking at your representation they consider that it is likely to affect the Tea industry in respect of its export market.

Mr. Jenner.—Tea prices vary to a larger extent than that.

Dr. Matthai.—You don't think it would matter.

Mr. Jenner.—No.

Timber Supplies.

President.—In your representation you have given us an estimate of the amount of hollock in the Sadiya Division. You base it on the enumeration survey of Sadiya Division.

Mr. Tarlton.—Yes on their enumeration and this is confirmed so far from our experience of the forests which we have already worked.

President.—Have you got a copy of the enumeration survey of Sadiya Division?

Mr. Tarlton.—Yes.

President.—Could you let us have a copy?

Mr. Tarlton.—Certainly.

President.—You say that you use hollock and simul, is not that so?

Mr. Tarlton.—Mostly hollock.

President.—There is a difficulty. In one place you speak of the simul being 1/3rd of the total and in another place you speak of the hollock forming the centre piece in which case the hollock would be 1/3rd and simul would be 2/3rds.

Mr. Tarlton.—We have found so far that a hundred per cent. simul box is not as strong a box as the hollock box, but a simul box with the centre piece made of hollock is a strong box. We have the hollock timber necessary for our requirements for a considerable number of years. But we must not ignore simul, it is a tree that grows much faster than the hollock.

President.—You are going to manufacture that box with one-third Hollock and two-thirds Simul.

Mr. Tarlton.—At present our box is 100 per cent. Hollock. We have not carried our experiments sufficiently far so as to enable us to place a Simul Hollock box on the market though we have already shipped trial invoices home.

President.—I am speaking of the combined box.

Mr. Tarlton.—It is made of one-third Hollock.

President.—That is to say, at present your main demand would be for Simul.

Mr. Tarlton.—No, our boxes are made from Hollock. We are experimenting with Simul.

President.—Could you give us an idea as to the proportions of the two which you would normally be using in the future? Can we take it half and half?

Mr. Tarlton.—It depends really on the buyer. There would be no difficulty in going fifty-fifty or any other proportion that may appeal to the market.

President.—But you cannot say definitely at present.

Mr. Tarlton.—No.

Dr. Matthai.—The idea is to make the centre ply of Hollock and the face and the back ply of Simul, is it not?

Mr. Tarlton.—That is what we would call our Simul box.

Dr. Matthai.—Simul is supposed to be a softer wood.

Mr. Tarlton.—Yes.

Dr. Matthai.—Therefore I take it that the Simul ply would be rather thicker.

Mr. Tarlton.—Not necessarily. But so far in our experiments we have cut the Simul ply a little thicker than usual.

Dr. Matthai.—What is the thickness of your mixed ply?

Mr. Jenner.—3/16th of an inch.

Dr. Matthai.—3/16th is the width of your present ply?

Mr. Tarlton.—Yes.

Dr. Matthai.—Supposing you made a mixed ply, one-third Hollock and two-thirds Simul?

Mr. Jenner.—It would probably be 3/14th.

Dr. Matthai.—Would that make it a little heavier?

Mr. Tarlton.—No. Simul is lighter than Hollock.

President.—It would mean more cubic foot per box.

Mr. Tarlton.—Yes, slightly more.

President.—You say that your Hollock supplies would permit you to produce 15 lakhs of boxes a year. Supposing a large proportion of these supplies is unextractable?

Mr. Tarlton.—So far we have not gone into any area that is unextractable.

Extraction Costs.

President.—Could you give us any idea as to the probable cost of extraction in future years. I was looking at a note by Mr. Pearson in which he said that in the last 16 or 17 years the price of timber required for shooks had gone up by two annas. Could you give us any sort of estimate as to the probable increase in the next ten years?

Mr. Jenner.—The cost of timber will not increase because in the future practically all our timber will be floated and the cost of floating is cheaper than the cost of extraction by rail.

President.—That is exactly your position as applied to Hollock?

Mr. Tarlton.—No, Hollock and Simul. In 20 years these forests will be back to normal. The Government have definitely undertaken to go on replanting.

President.—That is as far as Simul is concerned.

Mr. Tarlton.—As far as Simul and Hollock are concerned.

President.—At one period of the existence of your ply wood factory, that is in the early period, your wood cost was pretty low.

Mr. Tarlton.—Yes.

President.—You were then getting your supplies from forests which were close by.

Mr. Tarlton.—Yes.

President.—The price would gradually rise as you exploited the farthest areas, until the areas near your factory had been restocked by replanting or material rejuvenation. What I should like to get at is the average price of your supplies. What is your cycle now?

Mr. Tarlton.—50 years.

President.—Have you got any figures which would give us some sort of estimate as to the average price of wood during these 50 years?

Mr. Tarlton.—I presume you are referring to the growth of a tree, when you speak of a cycle?

President.—Supposing you have 10 blocks of Hollock. After you have worked the blocks nearest to the factory, you will work the blocks further away from the factory. Now it will take 50 years for the trees to grow up in the blocks which have been worked already. So that, if you take a 50-year cycle, at the 50th year you will be cutting your wood in a block which is farthest from your factory, where it will be most expensive. I want to know the average cost of cutting wood for the whole period?

Mr. Tarlton.—We have now touched the farthest point. The figures that are before you at the moment are for a period of years. The timber that we are now getting at 0-7-8 is expensive. Round that point timber will continue to come in. We thought at one time that we should have to bring the whole of our timber in by rail, we were told that Hollock would not float. We find that we can float Hollock. Therefore we are floating most of our timber. So we are now at a point when our timber cost is at its maximum.

President.—It would be very useful if you could give us your 1926-27 figures.

Mr. Tarlton.—Yes.

Dr. Matthai.—Your point is this, that if we are considering the future of your industry for the next ten years, you don't expect, considering the areas to be exploited during the next ten years, that the cost of timber is likely to exceed the highest figure given here.

Mr. Tarlton.—That is so.

Dr. Matthai.—The variations during the next ten years will be precisely the sort of variations that we find here.

Mr. Tarlton.—Yes. We have given you what I would call the high water mark, the cost will not be higher.

Dr. Matthai.—The highest figure that you have given for the cost of timber is 9 annas 3 pies for December, 1926.

Mr. Tarlton.—Yes. But our reply to question 23 would give you the average for the last four years.

Dr. Matthai.—That would be 7 annas 6 pies. Your own impression is that we should be quite justified in considering 7 annas 8 pies as the maximum considering the areas you are likely to extract from during the next ten years.

Mr. Tarlton.—Yes, we know from experience what the timber costs from the Branch line. So, you could take 7 annas 8 pies as a safe figure.

President.—That is the maximum.

Mr. Tarlton.—Yes.

Mr. Jenner.—In those figures we have actually added the cost of putting down ten miles of tram line. The cost of rails and other expenses which we should never have again are included in those figures.

President.—I don't quite follow?

Mr. Tarlton.—The rails will be used over and over again.

Dr. Matthai.—Will not that expenditure come under the capital account?

Mr. Tarlton.—I don't think so.

President.—Do you mean that when a new branch line is to be constructed you simply take the old rails from the block where they are no longer required and put them down in the new block.

Mr. Tarlton.—Yes.

President.—You remove the same rails to each block as they are required.

Mr. Tarlton.—We are not taking 100 per cent. of the timber over rails.

President.—Having once put down your earthwork, when you come back say after ten years, will you be able to use the same earthwork?

Mr. Tarlton.—No, it would be mostly washed away.

Dr. Matthai.—What are your timber charges since May 1927?

Mr. Tarlton.—Please refer to figures handed in.

President.—Have you any other kind of timber to fall back upon for the manufacture of tea boxes?

Mr. Tarlton.—Hollock and Simul are our main supplies.

President.—What about Hollong?

Mr. Tarlton.—We have got little of it.

Mr. Jenner.—There is Hollong in the Sadiya area but we have not extracted it as yet.

Accuracy of Enumeration Surveys.

Dr. Matthai.—As regards the enumeration survey, what is your experience? Are the estimates borne out by results?

Mr. Tarlton.—They work out very well indeed.

Dr. Matthai.—You have had sufficient experience to judge as to the accuracy of these estimates.

Mr. Tarlton.—Yes.

President.—You have asked for some assistance from the Forest Department. Could you give us a rather more definite idea as to the exact assistance you require? You say that you want Hollock trees to be enumerated. You have already got the enumeration survey for the Sadiya Division. What other enumeration remains to be done?

Mr. Tarlton.—We rather thought that the Forest Department's duty was to push ahead and tell us what the jungle contained and relieve us of this expenditure. We have paid for a good deal of the enumeration that has been done during the past few years.

President.—We are confining our attention to Hollock. You say that the enumeration survey for the Sadiya Division is a good piece of work. As regards tea chests, what other areas are there that you want them to survey. Perhaps you might look it up and tell us later on.

Mr. Tarlton.—I will give you the names from the map.

President.—As regards Hollock can you tell us exactly what remains to be done?

Mr. Tarlton.—Yes.

President.—Supposing you have to pay the full royalty in future, you would press this point?

Mr. Tarlton.—Yes.

President.—I think it would be advisable for you to specify exactly what areas you do want to be enumerated.

Mr. Tarlton.—We will do that.

Dr. Matthai.—You are also thinking of enumeration of trees other than Simul?

Mr. Tarlton.—Yes.

President.—Have you seen the enumeration compiled by one of the Forest Departments? How far do you think an enumeration like that could be acted upon? That gives you an estimate of the annual outturn of most of the areas with which you are concerned?

Mr. Tarlton.—I have not seen these. As far as I know they have not enumerated Lakhimpur.

Dr. Matthai.—The enumeration of Simul is a big proposition and if it is true that a certain amount of preliminary work has been done by the Forest Department, it is just as well that we should know precisely what it is that has been done.

Mr. Tarlton.—Yes.

Dr. Matthai.—On the question of Simul I find in your representation you take 20 years as the rate of growth, and you quote some forest officer's statement in support of that.

Mr. Tarlton.—We put it at 20 to 25 years.

Dr. Matthai.—We put the point to Mr. Jacob at Shillong and he said you under-estimated it, and that it took 30 years for Simul to grow to maturity.

Mr. Tarlton.—I took 25 years.

Dr. Matthai.—The difference between 20 and 30 years from the point of view of annual outturn is a fairly big difference. In paragraph 7 of your original representation you say "To quote from another Forest report Simul is a quick and vigorous grower and in suitable localities and under protection from fire and cuttings will become fit for the saw at an age of about 20 years or even less." Who is this person you quote from?

Mr. Jenner.—I should like to look that up and let you know.

President.—We were told in Burma that 30 years might be taken for Simul.

Dr. Matthai.—I think generally forest officers take it nearer 30 than 20. As far as Simul is concerned in the areas accessible to your mills the really important service that the forest department can do is not so much enumeration as preservation. If the forests could be protected from fire and things of that kind, you would be more or less safe even if the forest department were unable to make any definite enumeration. Is that correct?

Mr. Tarlton.—There is a great deal in what you say. I understand the forest department are taking definite measures to do a great deal for the protection of young trees.

Dr. Matthai.—They are unclassified forests?

Mr. Tarlton.—We have areas that are still unclassified but there are also areas which are classified.

President.—How much of this Simul is outside Government forest. Is there any *malguzari* jungle?

Mr. Jenner.—It is all Government forest.

President.—So that it is really a question whether it is reserve forest or unclassified forest? Simul grows along river banks largely, does it not? It does not grow in cultivated areas?

Mr. Jenner.—It grows chiefly along river banks.

Dr. Matthai.—Actually you do not get your Simul from any cultivated areas but only from Government forests so that it would be quite reasonable to ask Government to undertake enumeration.

Mr. Jenner.—Simul is more scattered than Hollock.

Dr. Matthai.—My difficulty about that point is this. Any forest department would consider the enumeration of Simul as rather a big thing to ask. Here is this Meckla mill. That mill has been working during the last 30 or 40 years and during that period they have been exploiting Simul and still 10 or 15 years ago they had enough quantity of Simul. And since then they have had time to regenerate. Provided Government undertook to protect the area there would be sufficient Simul for the next 10 or 15 years; without any enumeration you can assure yourselves on that point.

Mr. Jenner.—That is the area which is best as regards to Simul.

Mr. Tarlton.—We can certainly do that especially as regards the Meckla area.

Dr. Matthai.—Then why do you want an enumeration of Simul?

Mr. Tarlton.—We are speaking of areas up the river and not of the timber in the Meckla area. In case we want to get large quantities of timber for the manufacture of veneer boxes.

Dr. Matthai.—Within your area?

Mr. Tarlton.—Yes, on the upper reaches of the Brahmaputra. Timber near Meckla is of no use to us at Murkong Selek.

President.—Would you mind letting us know the exact location of the forests in the areas that you ask for enumeration?

Mr. Jenner.—We will have to bring the maps and show you the areas. I may tell you how this matter was brought forward. When we were experimenting with Simul and Hollock boxes the idea of putting another veneer factory much further down the river in the Lakhimpur district occurred to us and we had to consider from where we could get our timber; we did our best to get the information from forest officers but we could get no accurate information as to the amount of Simul and Hollock or the area where these would be available. I think that is really how the question arose. One official told us "Go to below Tezpur and you will get any amount of Simul." We sent our forest man there and he returned having learnt that there was not much Simul there, and that he would have to go 50 miles higher up; his further investigation gave no better results.

Plantation.

President.—Government has already undertaken 400 acres of plantation.

Mr. Tarlton.—Have they definitely decided on the area or have they only decided to grow so much per annum?

President.—I think in 1914 they planted about 400 acres.

Mr. Jenner.—We have arranged with the forest department to clear 20 acres every year for regeneration in the vicinity of the Veneer mill.

President.—Do you think any further regeneration is necessary?

Mr. Jenner.—It rather depends on how the areas which they have planted have turned out.

President.—Assuming that they turned out well, would it be necessary to undertake anything further?

Mr. Tarlton.—Yes.

President.—I take it that provided Government continues their present policy of planting you do not wish to press for the enumeration of trees?

Mr. Tarlton.—I don't think so. I would like to make it clear that Government should closely follow our extraction and back it up by setting out each year an area for plantation according to the amount of timber we are taking out.

President.—According to your lease you pay 6 pies per cubic foot for Simul?

Mr. Tarlton.—Yes.

President.—But in July 1927 this is liable to be increased to 1 anna 6 pies per cubic foot at the increased rate it might be worth considering plantation with a view to supplying your requirements? Do you think that is the policy of Government?

Mr. Tarlton.—I understand that is the policy of Government.

President.—As regards Hollock what about the planting operations?

Mr. Tarlton.—They are doing exacting the same as regards Hollock as they are doing for Simul.

Mr. Jenner.—They are now concentrating on Hollock but they have got experimental nurseries for other timber as well.

President.—As regards Simul I understand in 1914 they did certain definite planting; they planted by the agency of some aboriginal tribes. So that as regards plantation of Simul you are satisfied with their policy, are you not?

Mr. Tarlton.—Yes. I think I am right in saying Government is planting 25 acres of Hollock each year. To what extent they will increase depends, I suppose, on the revenue they receive.

President.—I presume if a new mill started, Government in its own interest would undertake planting operations?

Mr. Tarlton.—I should think so.

Dr. Matthai.—This area that you are speaking of as the Lakhimpur district, how would you geographically describe that?

Mr. Tarlton.—The area is North Lakhimpur area; we thought of erecting the Surma Valley factory, at Subansirimukh to catch the Tezpur gardens. We were told by different officers there was plenty of timber, our people did not confirm this. We asked Government if they would survey these particular districts and advise us on the quantity of timber available.

Dr. Matthai.—The district of Lakhimpur covers practically the whole of your saw mills area in upper Assam.

Mr. Tarlton.—No we had one mill in the Lakhimpur area but Meckla and one Veneer mill are in the North-East Frontier Tracts.

Dr. Matthai.—The Margherita mills too are in the Lakhimpur district?

Mr. Tarlton.—No. We will bring maps and show you.

President.—So far as the existing mills are concerned, you are satisfied with the planting operations. As regards enumeration I think owing to the fact that the mills have been in existence for sometime, you have sufficient information as regards supplies except in relation to some portions. In regard to these you will consider in which particular areas enumeration is required. Then as regards the general question of enumeration, do you think that besides the forests which serve the present mills the Government should carry out enumeration with the object of supplying information to any other mills starting?

Mr. Tarlton.—We would certainly like Government to give us information on what I will call the North Lakhimpur area. We have been told that there is a great deal of timber there and our own staff doubt this.

President.—It is possible that you might in certain circumstances start a Veneer mill.

Mr. Tarlton.—We thought of this area for the Tezpur District. If we were assured that there was sufficient timber, we should again consider it.

Fuel.

President.—Dealing with your other natural advantages in your application—as regards coal and wood—in what proportion do you use coal and wood?

Mr. Tarlton.—We don't use any coal.

Dr. Matthai.—The firewood you require, do you get entirely from the wastage at your factory?

Mr. Tarlton.—Not entirely. Branches of trees are brought in and out up for fire wood, but at the moment we are relying on the waste from the factory.

Dr. Matthai.—Supposing you have to take the firewood, has that got to be paid for?

Mr. Tarlton.—Only the collection charges.

Dr. Matthai.—There is no royalty on that?

Mr. Tarlton.—No.

Welfare work.

President.—What welfare work have you?

Mr. Tarlton.—We have a hospital. We keep an experienced Indian doctor, compounder, and assistants.

Labour.

President.—What is the total number of your labour force?

Mr. Tarlton.—It is about 350.

Dr. Matthai.—Do you mean in the Veneer factory?

Mr. Tarlton.—Yes.

President.—Have you houses constructed for them.

Mr. Tarlton.—Yes.

Dr. Matthai.—On that question of labour earlier in this representation you speak of the wages distributed among the hill tribes and it comes on an average to about Rs. 6 lakhs. I was looking at it this way. If you take Rs. 10 a month or Rs. 120 a year that means approximately 5,000 men.

Mr. Jenner.—Rs. 6 lakhs is the actual amount of money spent in the province.

Dr. Matthai.—For all the mills.

Mr. Tarlton.—For the Veneer and Meckla mills.

Dr. Matthai.—This is a very interesting figure. There is a good deal to spent in the way of wages not merely at the factory but also on account of extraction?

Mr. Tarlton.—Yes.

Dr. Matthai.—Does that come to so much as that on two mills?

Mr. Tarlton.—Yes.

Dr. Matthai.—This is a very interesting figure. There is a good deal to be said for an industry which distributes in an undeveloped province like Assam about Rs. 6 lakhs among those classes of people.

Mr. Tarlton.—I will confirm them if you like.

Dr. Matthai.—Such rough test as I am able to apply makes me think on the two mills it is rather an excessive amount.

Mr. Jenner.—I will check that.

Dr. Matthai.—Do you have people recruited from hill tribes in the factory?

Mr. Tarlton.—Not in the factory.

Dr. Matthai.—The actual factory labour, are they all Assamese?

Mr. Tarlton.—I should say so.

Dr. Matthai.—Have you got any from Bengal?

Mr. Tarlton.—A few from Bengal. The labour has come up from Meckla and from the mills now closed.

Dr. Matthai.—Are they imported from Bengal?

Mr. Tarlton.—I don't know whether Meckla people are Assamese or not.

Dr. Matthai.—Do they speak Assamese or Bengali?

Mr. Tarlton.—I should say a cross between the two.

Dr. Matthai.—I was wondering whether the indigenous population show any considerable aptitude for the work. It is rather an interesting point.

Mr. Tarlton.—The whole of that labour is more or less local. They have been trained on this work for the last 4 or 5 years.

Dr. Matthai.—I was talking to Mr. Joseph at Margherita and he seemed to think that the Assamese as material for skilled labour were rather disappointing so far in his factory, and for anything like responsible work he would sooner depend on labour from outside Assam.

Mr. Tarlton.—I don't know whether you call them Assamese or not. They are local products and I must say, on the whole, they have done remarkably well.

President.—Do you find that your labour force is gradually learning to hold responsible posts?

Mr. Tarlton.—I would not say that. We have sirdars now responsible for the lathes. I don't think they undertake responsibility very seriously at the moment, but I think in a year or two they will make quite good foremen for the different departments.

President.—But they are being promoted gradually to more responsible posts.

Mr. Tarlton.—We call them sirdars. There is a sirdar in charge at different points in the factory.

President.—Formerly whom did you have as foreman?

Mr. Tarlton.—Formerly we had a European.

President.—You are gradually replacing them.

Mr. Tarlton.—We are now experimenting with two Kalimpong boys.

President.—We could deal with the subject when we come to costs.

Mr. Jenner.—The man in charge of extraction of timber for Meckla is an Assamese.

Lead linings.

President.—You say there are 4 rolling mills which are producing lead linings.

Mr. Jenner.—(1) The Kamarhatti mills. (2) A mill managed by Messrs. McLeod & Co. (3) A mill managed by the Planters Stores. (4) A mill at Jalpaiguri.

Dr. Matthai.—They are all mainly engaged in rolling sheets for tea chests.

Mr. Jenner.—And nothing else.

Dr. Matthai.—When you have a rolling mill for making lead sheets required for tea chests, there is nothing to prevent that mill being used for other kinds of lead sheets. It is the same work, is it not?

Mr. Jenner.—They can roll any weight of lead sheets.

Mr. Tarlton.—I see no reason why they should not, provided they have sufficient rolls.

Dr. Matthai.—Would the rollers have to be changed?

Mr. Tarlton.—Undoubtedly.

Dr. Matthai.—It depends on the size they are rolling.

Mr. Tarlton.—Yes.

Dr. Matthai.—Is the lead sheet used for tea chest heavier than lead sheets used for other purposes? I will tell you what I have in mind. I was looking at the trade figures for lead sheets and I found about 15,000 cwts. of lead sheets for purposes other than tea chests. Supposing it happens by any kind of tariff arrangement that we may make that the lead sheet industry loses any particular protection that they may now have in regard to tea chest sheets, would there be sufficient demand in other directions for them if necessary to turn their energy in that way?

Mr. Tarlton.—Lead rolling is done much on the same lines as steel plate rolling. Sheets for lining boxes are about the finest rolling that you can possibly make.

Dr. Matthai.—You mean by the finest the thinnest sheets.

Mr. Tarlton.—Yes.

Dr. Matthai.—How do you account for the fact that about half the lead sheets imported come from Ceylon?

Mr. Tarlton.—Evidently none of the mills here are rolling up to sizes in demand for building purposes.

Dr. Matthai.—What advantage has Ceylon in this matter?

Mr. Tarlton.—I don't know.

Mr. Jenner.—For Serdang boxes I think lead linings are bought from Messrs. Harrison and Crossfield's rolling mills.

President.—Is that in Ceylon?

Mr. Jenner.—Yes, in Colombo.

President.—Could you tell us what the output of these 4 mills is?

Mr. Jenner.—No, but we could find out.

President.—Are they continuously employed?

Mr. Jenner.—I can only speak of one from which we have been considering buying lately which is not fully employed at the moment I believe.

President.—Which is that?

Mr. Jenner.—The mill belonging to Messrs. McLeod & Co.

Fittings.

President.—As regards fittings that are manufactured at Kamarhatti, how long has that mill been working?

Mr. Jenner.—Quite a long time.

Dr. Matthai.—What they do is to import terne plates and cut it up.

Mr. Jenner.—The Kamarhatti mill belongs I believe to the Venesta Company.

President.—You don't know their output.

Mr. Jenner.—No.

President.—Have you placed all your orders with them?

Mr. Jenner.—Yes, for the last 4 years.

Dr. Matthai.—Kamarhatti have their lead mills.

Mr. Tarlton.—Yes.

Dr. Matthai.—Do you buy both linings and fittings from the Venesta Company?

Mr. Tarlton.—Yes, at present, but we are not tied down to this arrangement.

Dr. Matthai.—There is keen competition to keep down the prices.

Mr. Tarlton.—Previously no, but because of the erection in Calcutta of additional mills, prices have come down. I think I am right in saying that

the rate which we got from Venesta for fittings and linings was annas 2 under the price of imported fittings and linings.

Glue.

President.—As regards glue, your glue is manufactured from casein by Messrs. Smith Stanistreet. Can you tell me for what other purposes casein is used? The Collector of Customs says:—"In general, casein in some form or other is used in many industries, such as paper glazing, leather dressing, soap making, cotton sizing, boot polishes, waterproof cements, polishes, etc." There is a proposal before the Government of India to reduce the duty on all mill stores. I presume casein is one of them. Supposing the duty was reduced on casein, would that make any difference to your price?

Mr. Tarlton.—It should.

President.—There is a large export of 12,000 tons of casein a year. I was wondering whether the internal price is regulated by the price of imported casein plus the duty or whether the duty makes any difference to the internal price.

Mr. Jenner.—I think yes. My experience is that if anybody comes into the market, the price immediately goes up. It would seem that the amount of casein in India at the moment is not much.

Dr. Matthai.—The price is rather determined by the export conditions?

Mr. Tarlton.—There is, I should say, a considerable import of casein

President.—We were told by the Assam Railways and Trading Company that occasionally they had to order casein from Holland because local prices went up very high.

Mr. Jenner.—That is also our experience.

President.—If that is so, it would follow that you would be able to get your requirements cheaper by a reduction in the duty.

Mr. Tarlton.—We had a similar experience at the time of fixing the price under our last contract. We asked for prices from home and we found that we could buy cheaper from abroad. We told our suppliers about this and then they came down to our price.

President.—If mill stores were to come in free, it would help you.

Mr. Tarlton.—Yes.

Dr. Matthai.—To the extent of about 8 pies.

Mr. Tarlton.—About 5 pies.

President.—What you do at present is to get your casein glue from the chemists.

Mr. Tarlton.—They manufacture the casein cement which we convert into glue.

President.—You buy casein plus the other chemicals.

Mr. Tarlton.—No our suppliers do that.

Dr. Matthai.—Take the casein which is made in Bombay and exported from there. Is that the form in which you buy?

Mr. Tarlton.—No our suppliers buy the casein plus the chemicals.

Mr. Jenner.—The chemists that we buy from would buy the raw casein, they then grind this and add the necessary chemicals. It is then in the form of powder that it is shipped as casein cement.

President.—Why can't you do this yourselves?

Mr. Tarlton.—We are now considering doing so.

President.—Do you think that there is a possibility?

Mr. Tarlton.—Yes.

Dr. Matthai.—Smith Stanistreet's are the only people who prepare casein cement in the form in which you buy at present?

Mr. Jenner.—They are the only people from whom we have brought from in India though we have had other offers from time to time.

Dr. Matthai.—Supposing the import duty on casein were removed but the 15 per cent. on casein glue still remains, that is to say the product with which Smith Stanistreet's are competing still bears a duty of 15 per cent.—unless there is internal competition there is nothing to prevent them from keeping up the price?

President.—Except that you can manufacture it.

Mr. Tarlton.—If we cannot buy at a price which we think fair and reasonable, we shall undoubtedly manufacture it.

Birchwood v. Indian Timbers.

President.—Can you give us any information as to the cost of Birchwood logs per c. ft.?

Mr. Jenner.—Yes, we will give you this later.

Dr. Matthai.—Have you any idea as to how Hollock compares with Birchwood as material for plywood? We have got some figures about Hollong which seem to suggest that if you put a c. ft. of Hollong in the log into your veneer machine, then the actual amount of plywood you get is somewhere about 30 per cent. that is to say there is a wastage of about 60 to 70 per cent. Although you might get your wood at the factory at say about 6 annas a c. ft. and although the man in Finland has got to pay 12 annas, if the wastage is so much, it practically gives you no advantage. Have you got any kind of information as to the proportion of wastage in Hollock as compared with Birchwood?

Mr. Tarlton.—I had this as a verbal statement from a manufacturer at home who said that their average figure worked out at just under .75 per c. ft. per box.

Dr. Matthai.—The wastage comes to 25 per cent.

Mr. Tarlton.—That gives you a wastage of 25 per cent. In our case we have taken 1.20 c. ft. per box which shows that there is not so much wastage in the Birchwood as there is in the Hollock.

Dr. Matthai.—There is a tremendous difference.

Mr. Tarlton.—Yes, quite a big difference.

Dr. Matthai.—Then, as far as the quality is concerned?

Mr. Tarlton.—Are you speaking of the tensile strength?

Dr. Matthai.—Yes.

Mr. Tarlton.—Our boxes do not yet test as well as those made of Birchwood.

Dr. Matthai.—There is agreement among the people who have been buying from you that that is so.

Mr. Tarlton.—As far as we know, the people who have bought from us have no complaint to lay against the strength of our product.

Dr. Matthai.—That is the opinion we have had too. We were examining a tea planter up at Shillong on this question. We may take it that in point of tensile strength yours is as good as the imported product.

Mr. Tarlton.—Yes. Only by chance the other day I met a garden manager and asked him if he would criticise our box and help us with any suggestions. He was packing 100 per cent. of his tea in our boxes and he said that he was absolutely satisfied.

Dr. Matthai.—About the question of appearance and finish, is there any difference?

Mr. Tarlton.—Our box has not got quite as good a finish as the foreign box but we are putting in a sanding machine to improve the appearance.

Dr. Matthai.—You don't have it now.

Mr. Tarlton.—Not now, it will be working shortly. We are also thinking about a wringer, this will also give a better appearance.

Dr. Matthai.—As regards consumption of glue, how does Hollock compare with Birchwood?

Mr. Tarlton.—I must reply by repeating what I was told by manufacturers at home. They expressed surprise at the efficiency of our glue. We sent some logs for home and the result was excellent; this I think goes to show that from the cutting, gluing and pressing our boxes were found to be superior to what they imagined.

Dr. Matthai.—That is to say, the actual product as it comes out of the machine, glued and so on, is as satisfactory when it is made of Hollock as it is when it is made of Birchwood. That is true but what I am trying to get at is this. Take a tree like Birchwood which is more straight grained, cleaner and sounder. Therefore you will find the veneer would have a smoother and a more even surface. You don't have any depressions which would absorb the glue and cause wastage. Now I was looking at your glue charges. Might it be that part of the reason why you have to spend so much as six annas or six annas and six pies on glue is that there is a certain amount of glue wasted because your wood is Hollock which is not so smooth as Birchwood.

Mr. Tarlton.—As regards surface we would say 'yes' to your question. If it was a smoother wood we would not be using so much glue. Against that the suppliers of glue give a certain consumption per square foot. We have found that we are always within the scale that these manufacturers give. I cannot say whether people using Birch have got better results. By applying the wringer, we shall take out any corrugations that may be in the single ply.

Dr. Matthai.—At what stage does that come in?

Mr. Tarlton.—As the ply comes away from the lathes we are passing it through the wringer.

President.—Do you expect an improvement in your cost of glue?

Mr. Tarlton.—We are experimenting at present.

President.—You said just now that the home manufacturers' average worked out to .75 c. ft. for birchwood and that the wastage came to 25 per cent.

Mr. Tarlton.—Yes.

President.—I don't quite understand how you came to the conclusion that the wastage was 25 per cent.

Mr. Tarlton.—I was informed a 19×19×24 box was made out of .75 c. ft. of timber.

President.—Where does the wastage come in?

Mr. Tarlton.—The rest is the wastage.

Dr. Matthai.—What you heard about the finished wood might be this. If you took one c. ft. of birchwood in the log, in the result you would get .75 c. ft. of ply wood.

Mr. Tarlton.—No. I gather from the statement one and one quarter boxes would be made from a c. ft. of timber.

Dr. Matthai.—The quantity of ply wood in a chest measuring 19"×19"×24" with a width of 3" must necessarily be .28 c. ft. Therefore out of 1.25 c. ft. in the long you get about .3 c. ft. ply wood and the rest is wastage.

Mr. Jenner.—That would include battens.

Dr. Matthai.—Mr. Joseph gave us .10 c. ft. for battens in a full sized chest of 19×19×24.

Mr. Tarlton.—We will check this figure.

Dr. Matthai.—Supposing your total output of ply board is 5 millions square ft.; in order to get the number of tea chests corresponding to it, we have got to divide 5 millions not by 17.6 but by something more because in the trimmings there is some wastage.

Mr. Tarlton.—Why not work on the cubic feet consumption? Would not that give you all the information you require?

Dr. Matthai.—It will not do to just take the figure of 17.6. I am simply considering how to equate your output in square feet of ply board to tea chests.

Freight advantage of ply wood chest.

Dr. Matthai.—There are just one or two general points in your original representation on which I would like to have some information before we get down to costs. In paragraph 2 of the original representation which you sent to the Tariff Board on the 9th June, 1927, you give reasons for the economic advantages of the 3 ply chests as compared with ordinary shook boxes, and the first of them is the question of freight. You make a statement that the steamer and railway companies are charging freight on gross weight whereas before freight was paid on cubic capacity. Has it reference to internal transport only or freight to Europe as well?

Mr. Jenner.—Internal only.

Dr. Matthai.—Therefore even now freight to Europe remains the same?

Mr. Jenner.—Yes.

Dr. Matthai.—Whereas before freight was paid on cubic capacity?

Mr. Jenner.—Yes, so many cubic feet per ton.

Dr. Matthai.—Is cubic capacity measured on the outside measurement of the box?

Mr. Jenner.—Yes.

Dr. Matthai.—Take for instance, a 3 ply chest measuring 19×19×24 and a shook box of the same measurement. In both cases the outside measurement is just the same, is it not?

Mr. Jenner.—When you are not using a ply wood box, you are not carrying so much tea, you are carrying more wood.

Dr. Matthai.—Let us take the present case the ply wood box would weigh 18 lbs. and would contain 115 lbs. of tea, so that the gross weight is 133 lbs., and the freight is charged on that. Take a shook box which weighs 28 lbs. and contains 105 lbs. of tea instead of 115. Therefore what happens under the present system is that the same freight is charged on 105 lbs. of tea as on 115 lbs. Now take the cubic capacity of the wood in a three ply chest which is about 5 c. ft.; a shook box is also 5 c. ft. on outside measurement and therefore the same freight is charged on 115 lbs. of tea—that is what the 3 ply chest contains—as on 105 lbs. of tea in a shook box under the present system.

Mr. Jenner.—In the first case the garden has not shipped the same amount of tea as it would have shipped in a ply box. Let us assume that he has shipped 500 lbs. of tea; he wants more chests to ship that 500 lbs. if he is packing in country shook boxes and that is how the freight is higher in the latter case.

Dr. Matthai.—That is true, but I don't think that would make any difference as to the actual rates between the two systems.

Mr. Jenner.—Are you speaking of the rate on the bulk or are we discussing from the point of view whether it is more expensive to ship tea in a 3 ply or in a country shook box?

Dr. Matthai.—This is one of the considerations which you say have led people to make a change in their practice.

Mr. Jenner.—In the case of the tea chest he ships 115 lbs. of tea and 18 lbs. wood; in the second case he ships 105 lbs. of tea and 28 lbs. of wood. Supposing each weighs 133 lbs. and he pays Rs. 10 freight in both cases, he ships in the 3 ply chest 115 lbs. of tea but 105 lbs. in the shook box. He pays the same amount of money for 105 lbs. and therefore per lb. he is paying more.

Dr. Matthai.—That is quite true but does it make any difference where it is cubic capacity? If it is taken on inside measurement it will make a difference.

Mr. Tarlton.—You are not making a comparison on the actual tea per case but between the cubic capacity as shipped?

Dr. Matthai.—Yes.

Mr. Tarlton.—There is no difference there. But you must remember that they will have to buy more shook boxes to ship their tea, and therefore it is more expensive from the point of view of freight owing to the larger number of boxes that are required to ship the garden's tea.

Dr. Matthai.—Can you find out whether it is on nett weight or on cubic capacity? If it is a difference between nett weight and gross weight, it is perfectly clear.

Mr. Tarlton.—We will let you know.

Dr. Matthai.—How does a 3 ply chest compare with a shook box in respect of liability to insects and so on?

Mr. Tarlton.—The 3 ply chest is free, whereas a softer wood is always liable to be attacked by white ants unless chemically treated as it would be if used for 3 ply boxes.

Dr. Matthai.—In the old days when tea was shipped in shook boxes there was difficulty with regard to storage because these were liable to insects. That difficulty does not arise with regard to 3 ply. It is distinctly better in regard to that?

Mr. Tarlton.—Yes.

Process of manufacture.

President.—We would like to get on record the exact process of manufacture from the wood in the jungle. Would you mind giving us a brief description? Starting with the tree in the forest after it is felled, I take it that before it is rafted, it is cut into required lengths.

Mr. Tarlton.—It is felled and then it is logged into suitable lengths.

President.—On the spot.

Mr. Tarlton.—Yes.

Dr. Matthai.—What is the usual length of the log?

Mr. Tarlton.—9 ft. It is dragged by elephant to a depôt and then floated or railed to the mill.

President.—Do you raft it down?

Mr. Tarlton.—Yes, from Basi Ghat. Mostly it is hollock.

President.—You were saying that black hollock does not float.

Mr. Tarlton.—We may put one or two logs of this type in a raft. It depends on the number of other logs we have.

President.—Then you get it to the factory.

Mr. Tarlton.—Then the first thing that we do is to cut those 9 ft. logs again by a cross cut Saw so that they may be of a suitable size for the lathe. Before they are put on the lathe, the logs are boiled for a period of time.

President.—Not steamed, they are boiled?

Mr. Tarlton.—Yes, boiled; we boil them there for 12 to 24 hours, they are then lifted out of the vats. The bark is taken off. Then the logs are ready to go into the lathe.

President.—How are they put on to the lathe?

Mr. Tarlton.—By an overhead crane.

Dr. Matthai.—Is it worked by electricity?

Mr. Tarlton.—The electric crane lifts the logs from the storage yard to the breakdown saw afterwards into the vats. It lifts them out of the vats and puts them on to the platform, where a small hand power crane or chain block

delivers the logs to the lathe. In the lathe it is cut into the required thicknesses. There the peeling is done or in other words the ply comes off on to the travelling table. From the travelling table it is cut into suitable lengths for various sizes.

President.—What is the name of the machine which cuts? Is it called the 'clipper'?

Mr. Tarlton.—The machine is called the "power clipper." From there the single ply will go into the wringing machine about which I spoke this morning and it is squeezed before it goes into the drier.

President.—It is an automatic drier.

Mr. Tarlton.—Yes. The single ply is then sorted and delivered into the drier at the far end. Here again the single ply is sorted and passes to another power clipper which trims the ply for centres. They are not finally trimmed before they go to the gluing machine.

President.—The clipper is simply a knife blade?

Mr. Tarlton.—It is simply a knife blade. From that point it passes through the gluing rollers. The centre portion is glued on both sides and then 3 plies go into the cradle that we have for building up to given heights on the portable trolleys that pass from this point to the press.

President.—That is a hydraulic press.

Mr. Tarlton.—Yes. They pass from there to the hydraulic press and then they are pressed and clamped. From the press they pass on and remain under the clamp pressure for about 24 hours. After 24 hours the clamps are taken off the presses and the boards then pass on to the trimming saws which trim them to the sizes required.

President.—How many saws are there?

Mr. Jenner.—4 saws in each machine. They are called the multiple edging machines.

Mr. Tarlton.—From the multiple saws they are then re-sorted and from there they go back to the dryer before being sent to the packing shed. Here they will pass through the sanding machine.

Dr. Matthai.—It has got to be installed yet.

Mr. Tarlton.—It is partly united.

Dr. Matthai.—How do you do the drying?

Mr. Tarlton.—At the moment they go through the drier.

President.—Through the automatic drier.

Mr. Tarlton.—Yes. Later the panels will be dried in a waste heat drier.

President.—That is to say in a drying room.

Mr. Tarlton.—Yes. From there they go to the packing shed where they are re-sorted, passed through the trade marking machine and packed according to the sizes ordered. From that point they are despatched to gardens.

President.—What about packing?

Mr. Tarlton.—Packing is done in the packing shed.

President.—Do you pack with bands?

Mr. Tarlton.—Yes, in some cases and in some cases we have to pack in boxes.

President.—Do you charge for the box?

Mr. Tarlton.—No.

Dr. Matthai.—What kind of boxes?

Mr. Tarlton.—They are made of soft wood.

Dr. Matthai.—Do they pay you anything for that?

Mr. Tarlton.—No.

Dr. Matthai.—Does your packing depend on the desire of the customer?

Mr. Tarlton.—Yes.

Dr. Matthai.—The more distant the market is the better the packing will have to be.

Mr. Tarlton.—Some customers demand that they should be packed in boxes.

President.—Even then you don't charge.

Mr. Tarlton.—No.

Dr. Matthai.—Just one point after the single ply comes off the lathes, they pass through the automatic drier.

Mr. Tarlton.—Yes.

Expansion of output.

Dr. Matthai.—I find from one of your replies here that if it comes to expanding your output from, say, 3½ lakhs of boxes to 5 lakhs of boxes, it would be necessary for you to have another automatic drier.

Mr. Tarlton.—When we have got the panels going into a drying room instead of through the drier, we shall be able to dry ply wood for 1,500 to 1,600 boxes per day. We have to reduce the heat in the drier to re-dry the panels. More or less we lose 5 to 6 hours out of 24 hours in dealing with the panels. We are cutting that out so that it will give us extra time to dry the single ply.

Dr. Matthai.—The difficulty I was feeling was this. In the way in which your plant is worked now, possibly your lathes have a bigger capacity than the output which you are able actually to produce.

Mr. Tarlton.—Yes.

Dr. Matthai.—So have the other parts of your plant. But what limits your output is the automatic drier, am I right?

Mr. Tarlton.—To a point. We thought that 1,200 boxes a day was the limit for the drier, but now we find that we can do all the drying that is necessary in a drying shed instead of utilising 5 to 6 hours a day drying panels.

Dr. Matthai.—You are practically adding to your capacity.

Mr. Tarlton.—Yes. That would give us 4½ to 5 lakhs of boxes a year.

President.—Do you think you can go up to 5 lakhs?

Mr. Tarlton.—Yes, I think so.

President.—Does your factory work continuously or do you have slack seasons in which you work half time?

Mr. Tarlton.—Last year was the first year in which we did not actually shut down. The year before we did shut down to overhaul the plant, but this year we are going to work right through.

President.—You have not yet done so.

Mr. Tarlton.—Last year we ran slowly through the whole period. We didn't push for output. We ran into something like ¼ of a lakh of stock.

President.—If you run continuously it might mean some reduction in your costs.

Mr. Tarlton.—Provided we can sell the boxes, it would not otherwise because we should be increasing the working capital by holding that stock.

President.—Assuming that the results of this enquiry would enable you to find a market, then there might be some reduction in your works cost as a result of continuous working.

Mr. Tarlton.—Yes. We say that we can go up to 5 lakhs of boxes a year.

President.—Apart from any reduction in supervision which will naturally result from increased production, there would still be a further small decrease.

Mr. Tarlton.—Yes.

President.—You work now one shift.

Mr. Tarlton.—Yes.

Dr. Matthai.—Would you work two shifts if there was a market for it?

Mr. Tarlton.—Certainly.

Dr. Matthai.—In the process of manufacture carried on by you there is nothing to prevent you from working two shifts.

Mr. Tarlton.—We can, as we stand to-day, work up to 5 lakhs of boxes on a one shift basis. To double that quantity we should put in an additional drier and two or three other machines. We should have no difficulty in doubling the output with this addition to the plant.

President.—Supposing you are able to get the market, there will be really no reason why you should not produce 5 lakhs of boxes almost at once.

Mr. Tarlton.—We are now waiting to do so. At the moment we have limited the output to 30,000 boxes per month. We have kept under that, because even with 30,000 boxes a month we run into stock. There are limits beyond which we cannot go both from the financial point of view and also for storage room.

President.—So that if we are to estimate your cost on 5 lakhs production, it would be quite a reasonable thing to do.

Production in Europe.

Mr. Tarlton.—Yes.

President.—I see in your note on Finland that the lowest production of ply wood is about 2,500 tons and if we were to take that as the smallest economic unit, it would come to over 4 lakhs of boxes, would it not?

Mr. Tarlton.—4½ lakhs of boxes.

President.—So that if we took a production of 5 lakhs of boxes, we should be taking really somewhere about the lowest output in Finland.

Mr. Tarlton.—Yes, as far as I can see.

President.—Have you any information as to the scale on which ply wood business is done in England?

Dr. Matthai.—Is there any factory in England which makes ply wood boxes like the Acme works?

Mr. Tarlton.—Yes, there is.

Dr. Matthai.—What is their output?

Mr. Tarlton.—We can't tell you what the actual output is. It is very difficult to obtain such information.

Dr. Matthai.—Have you any information about Germany or America?

Mr. Tarlton.—No.

President.—Judging merely by the Finland production the economic unit is somewhere between 5 lakhs and 10 lakhs of boxes. That is from your own note on Finland.

Mr. Tarlton.—I am unable to give you any definite information on that point.

Dr. Matthai.—Finland is exporting at least half the total exports of the world. Therefore we should be justified in thinking that your main competition is with Finland, but with regard to the President's question supposing you had a ton of ply wood, would you be justified in taking that as being equivalent to 50 c. ft.?

Dr. Matthai.—How do you translate the weight into c. ft.? Have you any data about that?

Mr. Tarlton.—We can work it back from Hollock and give it to you.

Dr. Matthai.—All their output is given in terms of tonnage.

President.—If you take their tonnage as 2,500 tons, that would be equivalent to 5 to 6 lakhs of boxes?

Mr. Tarlton.—If you are considering the tonnage shown here to be the equivalent to a factory's output on the Continent, you must remember a great deal of the ply wood is sent away in reels.

President.—I know that there may be some wastage in that.

President.—You were saying that this represents the maximum price reached over a period of years. Would it be reasonable to take that as the maximum of your price?

Mr. Tarlton.—Do you mean for the future?

President.—Yes.

Mr. Tarlton.—I think so.

President.—You said that 7 annas 8 pies was the cost when you were working on your farthest limits. You were telling us so before lunch.

Mr. Tarlton.—The figure of 7 annas 8 pies is the cost taking the timber coming from the farthest point on the branch line or in other words the most expensive supply. If we can shut down the rail transport entirely and bring it in by water (we shall never quite be able to do this) it would be very much cheaper.

President.—If this is going to be your constant figure, it is rather an important matter. You claim the supply of timber as one of your natural advantages, but your timber per box is going to cost you 7 annas 8 pies, that is equivalent in pence to 8½d. We were told in Shillong that the cost of birchwood is 10 annas; you take ⅓ of 10 annas, that is 7½ per c. ft., that is to say you are actually at a disadvantage of a penny.

Dr. Matthai.—What Mr. Jacob said was this. The minimum price was 10d. per foot. This is what he says "I did get some quotations sometime ago and I learned that for birch and aspen—of which they are using a lot—the minimum price was 10d. per foot" but whether this is the price landed at the factory or not there is no information.

Mr. Jenner.—Does he mean cubic feet or running feet.

President.—If you can get us some information on that point we would be obliged.

Mr. Tarlton.—We will check this figure by cabling home.

President.—Will you be able to get the market quotations?

Mr. Tarlton.—Yes.

President.—Supposing your practice continues the same can we take it that this price of 7 annas 8 pies will remain constant.

Mr. Jenner.—I think we shall be able to get down below that.

Mr. Tarlton.—For the present we must keep our branch line open and equipped, it is our second line of defence as it were. If we bring the whole of the timber by river the figure of 7 annas and 8 pies is high.

President.—Supposing you brought the whole of the timber down by river, would there be any difficulty about supplies?

Mr. Tarlton.—No.

President.—So that it is really a question to what extent you are forced to use your railway?

Mr. Tarlton.—Exactly. We will not use the railway except in serious flood time.

President.—Taking water transport what would be the cost of your wood?

Mr. Tarlton.—5 annas.

President.—120 c. ft. per box, that is about 6 annas. In the monsoon months you are bound to bring them by rail?

Mr. Tarlton.—This year we have brought in very little timber by rail. We have been able to get it down by river.

President.—For part of the timber you were using the rail when you have this figure of 7 annas 8 pies?

Mr. Tarlton.—This is the first monsoon season we have obtained supplies by river.

President.—If you were to use rail transport for a couple of months in a year then we could take it that the cost of your wood would be somewhere about 7 annas?

Mr. Tarlton.—I think annas 7 would be a perfectly safe figure.

President.—There is another point to be considered as regards the wood. Supposing the Assam Government wants to fix a higher rate and fixes it at 1 anna 6 pies?

Mr. Tarlton.—I think we shall have to pay one anna extra.

President.—I was wondering whether this 7 annas 8 pies could be taken as a reasonable price including the extra one anna during the next five years.

Mr. Jenner.—You were talking about floating in the monsoon. It is not quite correct to say that we cannot float during the monsoon as far as the river is concerned. The only difficulty we have in floating during the monsoon is to find a suitable place for rafting the logs. If we can get a rafting place we can float any time during the monsoon and during this monsoon our floating operations have not ceased.

President.—The Assam Railways and Trading Company's cost of wood is 5 annas 3 pies. Of course there are various points to consider. A small factory producing 40,000 chests a year would have a better selection of wood than you would. We have not yet taken their oral evidence but presuming that their figure of 5 annas 3 pies is accurate, I would point out that it includes the rail charges whereas your rail charges, or a large portion of them, would go into the capital account. At first sight therefore your figure appears rather higher.

Mr. Tarlton.—It is high. As I say the more timber we can bring down by river the better chance we will have of reducing this figure.

President.—Actually in the extraction of timber what charges have you to pay for supervision in the forests?

Mr. Tarlton.—We will let you have the details later.

President.—Are elephants included in these charges?

Mr. Jenner.—Their purchase price is charged to capital, livestock account.

Dr. Matthai.—I think you will have to examine the timber figures pretty carefully. If we have to take a figure like 7 annas 8 pies or 8 annas it affects not merely the question of the measure of protection that you require, it may have some bearing on the question whether you can ultimately dispense with protection at all.

President.—It is a matter which must be considered in deciding whether the industry qualifies for protection.

Mr. Tarlton.—Yes.

President.—You claim the abundance of the wood supply as one of the industry's greatest natural advantages. We would be obliged if you could let us have your estimate of what the average cost of wood will be for the next five years if the payment of the extra one anna royalty is enforced by the Assam Government.

Mr. Tarlton.—We will let you have this. From these figures you will see what the water transport costs against transport by rail. This is the first monsoon in which we have been able to transport timber by water. The figure we gave you is our average up to date.

President.—You have given your actual figures for 1927.

Mr. Tarlton.—Up to March 1927

President.—In working out the costs for our purposes we shall have to take the average cost. Not your actual cost, but the average cost for a period of years and we should be glad if you could assist us.

Mr. Tarlton.—Yes.

Glue.

President.—The next item is glue. The costs show a steady decline and curiously enough although the price of casein has gone up from Rs. 27 in 1924-25 to Rs. 38 a cwt. in 1926-27, your cost has come down steadily for glue. Can you give us any reason for that?

Mr. Tarlton.—In 1924 in the early part of the year certain mistakes in manufacture occurred necessitating the destruction of a certain number of panels. This was largely responsible for the high rate.

Mr. Jenner.—In 1924 too we were importing casein. This was sent out very badly packed and we had a loss in transit and again with that imported glue we were using 2 of water to one of cement whereas according to our present formula we can use 2½ to 1. That again accounts for the difference in cost.

President.—Then the reduction in the 1925 figures are for the reasons you have given; in 1926 there is a still further reduction. Is that due to better practice?

Mr. Jenner.—It is due to more economical working.

President.—The actual spreading of the glue is done by machinery, is it not?

Mr. Tarlton.—To make 19×19×24 chest we were leaving a margin of, say, 3" all round to be cut off. We have reduced the trimmings which is showing a considerable saving in glue. We have just made another cut.

President.—When did that take place?

Mr. Tarlton.—Two weeks ago. The panel before this had an overlap of 3". The whole of that has to be glued. Therefore there was certain wastage.

President.—Why did you originally cut it with a 3" margin?

Mr. Tarlton.—We had inexperienced labour. We considered it advisable to put a superglued box in the market.

President.—When did this reduction take place?

Mr. Tarlton.—A few weeks ago.

President.—That will be reflected in the costs of this year.

Mr. Tarlton.—Yes.

President.—What would you estimate the reduction at?

Mr. Tarlton.—7 to 10 per cent.

President.—You have reduced from 5 annas 3 pies in 1926 to 5 annas 1 pie in 1927. A further reduction of 3 pies might also be expected.

Mr. Tarlton.—Yes, we certainly shall get down another 7 per cent.

President.—That will be about 3 pies.

Mr. Tarlton.—10 per cent. will be 6 pies. 7 per cent. would be 4½ pies.

President.—A still further reduction might be expected on account of improved surface of the wood resulting from the use of the wringing machine.

Mr. Tarlton.—A further reduction may be expected, but we cannot say definitely at the moment how much it will be.

President.—Would it be reasonable for us to take in estimating your future costs that the reduction in the cost of glue would be about an anna?

Mr. Tarlton.—I would say half an anna. I certainly think we can get down by 6 pies.

President.—We can take that as certain.

Mr. Jenner.—Yes, assuming that the price of casein remains the same.

President.—Yes, that affects your other competitors as well.

Mr. Tarlton.—Yes.

President.—You can take 6 pies reduction as certain with a slight possibility of a further reduction resulting from the use of a wringing machine.

Mr. Tarlton.—Yes, I think so.

President.—I don't want to suggest to you that you should make a reduction which is not quite certain.

Mr. Tarlton.—We are expecting more economy by using the wringing machine.

President.—Do you consider that a reduction of 6 pies would be quite safe to take?

Mr. Tarlton.—Yes.

Dr. Matthai.—In the imported boxes with which you are in competition, do they use casein glue?

Mr. Tarlton.—Most of them use casein glue.

Dr. Matthai.—I heard a suggestion somewhere that when you are thinking of ply wood material like packing cases, it would be enough if you used vegetable glue.

Mr. Jenner.—The Surma Valley mills tried that but it was not satisfactory.

President.—Has a rubber box to be as strong as a tea box?

Mr. Tarlton.—Yes.

Dr. Matthai.—Practically each works has its own formula for casein glue.

Mr. Tarlton.—Yes.

Dr. Matthai.—You are quite satisfied with the material you are getting from the chemists.

Mr. Tarlton.—Yes, it is very good indeed; moreover our research department is always at it. Our suppliers have always to send samples of each shipment to our research department before it is sent to Assam.

Power and fuel.

President.—As regards power and fuel. The present charge is 7 annas 6 pies. I don't think there is much room for reduction in that. It would be interesting to know the reason for the decrease in charges in the past.

Mr. Tarlton.—We were using a proportion of coal in 1924 and a much smaller amount in 1925. From 1925 we were able to work one boiler.

President.—You have got a spare one.

Mr. Tarlton.—Yes. I don't think we can reduce much more in power.

Labour and stores.

President.—Could you give us the charges for labour and stores separately?

Mr. Tarlton.—I am afraid it would be a somewhat difficult matter.

President.—Do you mean that it would be difficult to separate them.

Mr. Tarlton.—We may be able to do it without referring to the factory.

President.—You have got a fair reduction under this head and your output has until this year remained fairly constant. I was wondering whether the prices of stores have come down. Does that account for the decrease or is it due to better practice? What stores are you using apart from lubricants?

Mr. Tarlton.—Belting, tools, engineering stores, etc. If it is important that you should have this statement, we could get it down from the factory.

President.—Could you give us any sort of idea as to the proportion of stores to labour? The stores charges must be very small. If it is a very small charge it is hardly worth while referring the matter to your factory.

Dr. Matthai.—I find from Mr. Joseph's figures his wages stand at 4 annas 8 pies per chest and his stores stand at 2 annas 3 pies which seem to suggest that stores are somewhere about 1/3rd of the whole item. Do you think that it is likely?

Mr. Tarlton.—Without examining the figures, I could not say.

Dr. Matthai.—Could you give us the reason for the reduction under this head? There is very little difference in the output during the last three years.

Mr. Tarlton.—Possibly the price of stores has fallen over these years. We will try and get it sorted out for you.

President.—You said you would reduce the running time of the factory. How would that reduce the labour charges?

Mr. Tarlton.—We were working extra hours, when the men were inefficient, to get the output, we had to run the factory for several hours longer than we are doing to-day.

President.—Do you think this is due to better experience?

Mr. Tarlton.—There has been an all round reduction on stores; as the running time of the factory is reduced so will the consumption of stores be reduced too.

Supervision.

President.—The next item is supervision. What is the reason for the reduction in 1926. I see the output has not very greatly increased.

Mr. Tarlton.—We found it necessary to change some of the staff.

President.—What are your actual supervision charges?

Mr. Tarlton.—We have one manager on Rs. 1,200. We have an Assistant on Rs. 750 and an Engineer on Rs. 650. In addition to them we have a man in the forest.

Dr. Matthai.—Where does the forest man come in?

Mr. Tarlton.—He will be debited to timber.

Dr. Matthai.—So that this reduction is largely a reduction in the salary of staff.

Mr. Tarlton.—Yes.

Dr. Matthai.—What was the reason?

Mr. Tarlton.—There have been two rapid changes. At one period during the transaction stage we had 2 managers' salaries on the books.

Dr. Matthai.—If we take the charges of supervision as Rs. 24,600 a year on 3,50,000 of boxes, that would come to As. 1.28 per box.

Mr. Tarlton.—That is only European supervision. Indian staff is not included in that.

President.—What would be the total cost of that?

Mr. Tarlton.—I will give you a detailed list to-morrow.

Fittings and linings.

Dr. Matthai.—On this question of fittings and linings, I find in 1927 your cost Rs. 1-5-6 and all that was bought by you was from Kamarhatty. How does that compare with the cost of the fittings and linings in an imported chest? Is it possible to form any idea?

Mr. Tarlton.—Yes, we call for home tenders for fittings and linings.

Dr. Matthai.—Rs. 3-7-0 you give as the average price for a box now. If I deducted Rs. 1-5-6 from that and got a figure of Rs. 2-1-6, would I be justified in saying that is the price of the panels in the imported chest or is the price that you pay slightly lower than the corresponding price for the imported?

Mr. Jenner.—It is a difficult question to answer. Even in the home quotation you have got to take into consideration profit. Take the big importers like the Acme Company. They might be willing to sell to us at their actual cost. If you compare that Rs. 1-5-6 with the price of the same article at home, the difference between the two is profit.

Dr. Matthai.—But in this figure there is also the profit you pay to Kamarhatty.

Mr. Jenner.—I don't know what the profit is.

Dr. Matthai.—If you take the present price of an imported tea chest as Rs. 3-7-0, would I be justified in taking the price of the panels and the battens in that imported box as Rs. 3-7-0 minus your figure for fittings and linings which is Rs. 1-5-6, or have they got a different quotation?

Mr. Tarlton.—I should say they have a different quotation.

President.—Do you think that difference would be sufficient to be of practical importance?

Mr. Tarlton.—It may be two annas.

Dr. Matthai.—These are the figures that we have got from the Customs Office. Unfortunately we have not got any figures for Venesta fittings and linings, but the other fittings and linings seem to show a much higher figure than your Rs. 1-5-6. They are all c.i.f. prices.

Mr. Tarlton.—That is exactly what we find in selling the boxes.

Dr. Matthai.—The problem comes to this. You are buying fittings and linings from people who are your competitors.

Mr. Tarlton.—That is so.

Dr. Matthai.—Is it likely that they would sell you fittings and linings at a price more favourable than those which their customers get when they buy an imported chest? It may be that the establishment of three or four local lead mills has rather tended to the prices falling below the imported price of fittings and linings.

Mr. Tarlton.—It will have the tendency to bring the prices down. Whether it will force the price down below the home figure or not, it is difficult to say.

Dr. Matthai.—If you take a big manufacturer in the United Kingdom of fittings and linings, he has a market all over the world. Here are these four people in India who are dependent entirely on people like you who make tea chests. If they don't get a market from you, they don't have any and therefore they have got to see at all costs that their prices are kept if anything below the import prices.

Mr. Jenner.—They have got their own market in India. There are about 30 lakhs of boxes used annually in Northern India.

Dr. Matthai.—Does this mean that the importers of Imperial boxes, Hercules, Lauralda boxes—all these people have their own mills?

Mr. Jenner.—The latter two have and the Venesta Company.

Dr. Matthai.—Who have not got a factory of their own?

Mr. Jenner.—The Acme Company have not.

Dr. Matthai.—As regards the other people, practically all their fittings are made locally.

Mr. Jenner.—Venesta's mill has been established for many years. McLeod's mill is now operating and turning out first class stuff. I don't think you can look upon the Buxa Company as a mill which can come into competition at the present time, though they certainly should. I believe the Planters Stores mill is also manufacturing.

Mr. Jenner.—There is no doubt at all that the imposition of an import duty of 15 per cent. as it is to-day has brought these lead mills into being in this country and that manufacture has started out here as a result of that import duty.

Dr. Matthai.—Once they are here, they cannot go back. They have got to produce locally.

Mr. Tarlton.—Yes.

Mr. Jenner.—If the import duty is taken away, then it is possible that we might buy more cheaply from England. A part of their market would be lost.

Dr. Matthai.—There are really two points. The first is whether the 25 per cent. duty should apply to fittings and linings as well and the other is whether you gain anything at all by there being a duty on fittings and linings.

Mr. Tarlton.—Evidently the duty of 15 per cent. has induced two other mills to start up.

President.—You are going to give us a considered statement to-morrow.

Dr. Matthai.—Your average realised price is Rs. 3-7-0.

Mr. Tarlton.—Nothing like that.

Dr. Matthai.—You give us the highest price and the lowest price. In your application, you say that the current price is somewhere about Rs. 3-7-0. Taking the highest and the lowest, the average realised price will be about Rs. 3-7-0. The highest figure you give represents the market quotations. Occasionally there are special discounts allowed which practically bring the prices down to the lowest price you indicate.

Mr. Tarlton.—That does not follow.

President.—As a starting point the figures for chests imported during December, January and February would be the safest figures to take?

Mr. Jenner.—Yes.

Packing.

President.—Then take the other items. Cost of repairs and renewals appear to be reasonable. Then packing: Is there any prospect of a decrease in cost?

Mr. Jenner.—I do not think so.

President.—Does that include labour on packing?

Mr. Jenner.—Yes.

President.—Will that change with the increase in output?

Mr. Jenner.—No; it would remain constant.

Miscellaneous charges.

President.—What are the items of miscellaneous charges exactly?

Mr. Jenner.—Agency charges. Actual expenses (bonus to coolies and so on) Medical charges. Leave and subsistence allowances. Motor car upkeep. Charges general—service stamps, telegrams and so on. Bad debts, Law charges. Freight on stores and transport charges.

President.—What are your bad debts?

Mr. Jenner.—Bad debts, Rs. 851. That is not on boxes but men, advances made to the forest men or a coolie and so on.

President.—Could you give us an estimate of your costs on the assumption that you were doing 5 lakhs of boxes.

Mr. Tarlton.—We shall have it ready for you to-morrow.

President.—Perhaps there will be a reduction in the supervision on timber?

Mr. Tarlton.—Yes.

President.—Will there be a reduction on labour and stores?

Mr. Tarlton.—On labour but not necessarily on stores.

President.—Then supervision charges of course would come down considerably and renewals and repairs I suppose would remain about constant?

Mr. Jenner.—Yes.

President.—On the other hand your working on machinery will be more continuous and here is a possibility of some reduction there.

Mr. Jenner.—Yes.

President.—Then fittings and linings will remain constant?

Mr. Jenner.—Yes.

President.—Packing charges I suppose will remain constant, but miscellaneous charges will come down.

Mr. Jenner.—That will be so.

Dr. Matthai.—When you buy fittings and linings for 5,00,000 boxes you may get some reduction in charges?

Mr. Tarlton.—We may, but there is a point under which these people cannot go.

Opium boxes.

President.—So far as costs are concerned I think we shall have to examine you on this point to-morrow. I think we may now ask you a few questions on point 24 in our questionnaire. Could you give us the size of an opium box?

Mr. Jenner.—24.2 s. ft. of 5-ply wood.

Dr. Matthai.—What are the actual dimensions? The Margherita people gave us 34½" × 26½" × 14" inside measurement.

President.—What was the number of 3-ply and 5-ply chests for which the opium report called for tenders.

Mr. Jenner.—The enquiry was for 3,700 3-ply and 1,500 5-ply. In 1926 it was 5,000 of each.

President.—But the orders were very much more than 5,000 boxes?

Mr. Tarlton.—That is all we were asked to tender for.

President.—Is there any difference in size between 3-ply and 5-ply chests?

Mr. Jenner.—5-ply is very big box; 3-ply is much smaller.

President.—In the specifications that you received from the Indian Stores Department I understand there was some difficulty.

Mr. Tarlton.—I think as regards battens they made it unnecessarily difficult for us. The panels of the boxes were quite straight forward, but instead of having the ordinary one inch or two inch square battens they wanted these to be sloped and angled. All that makes for great difficulty in working.

President.—What about fittings?

Mr. Tarlton.—They were of the same sort as the ordinary tinplate.

President.—We understood that they experienced difficulty in Margherita in getting fittings of the exact size.

Mr. Tarlton.—We got over that difficulty.

President.—If you want the right size of fittings you can go into the market and buy these?

Mr. Tarlton.—Yes, but they would have to be especially manufactured.

President.—We were told that they could not get the fittings even from Venesta. Have these boxes any linings at all?

Mr. Tarlton.—No.

President.—If you are to be able to tender successfully for these boxes the specification will have to be modified to suit the conditions of your factory?

Mr. Tarlton.—They can certainly make things easier for us. I do not wish to imply we cannot make the box to their specification.

President.—A good deal can be done in the way of changing the specification to enable the Indian companies to tender for these boxes successfully?

Mr. Tarlton.—Yes.

Dr. Matthai.—If you have got a copy of the notice calling for tenders, will you look at the notice and tell us precisely in what directions you would like the specification to be changed so as to enable you to tender?

Mr. Tarlton.—Yes.

President.—You say the cost of a full size opium chest is about Rs. 5-15-0 delivered at Ghazipore. What would be the railway freight on these boxes?

Mr. Tarlton.—Rs. 1-3-0.

President.—So that the f.o.r. price would be Rs. 5-12-0?

Mr. Tarlton.—Yes factory cost.

President.—And the 3-ply would be how much?

Mr. Tarlton.—I will let you have the information to-morrow, the figure of Rs. 5-12-0 is only an estimate.

President.—Could you give us any indication of the relation of cost as between 5-ply and 3-ply. As regards wood in the 5-ply you have two-thirds more than in the 3-ply and you have more glue; on the other hand you may have savings in trimming, and probably packing would not be so expensive. If the cost of 3-ply board is Rs. 3 should we be correct in saying that the cost of 5-ply would be Rs. 5? We have got fairly accurate costs as regards 3-ply but as regards 5-ply you say your work so far is experimental.

Mr. Jenner.—I do not think there should be so much difference in the cost.

Dr. Matthai.—Suppose we did it this way. Take the cubic quantity of ply wood in a 5-ply chest and a cubic content in a 3-ply chest.

Mr. Tarlton.—It would not do.

Dr. Matthai.—Could you work out on that basis?

Mr. Tarlton.—No.

Dr. Matthai.—In a 3-ply panel you have got two sides on which to spread the glue.

Mr. Tarlton.—Yes.

Dr. Matthai.—In a 5-ply panel you have 4 sides.

Mr. Tarlton.—Yes.

Dr. Matthai.—Since you have no actual cost, supposing we are to arrive at some estimate of what would be a fair selling price for the opium chest, on what basis shall we do it?

Mr. Tarlton.—We should require a little more time to work it out for you.

President.—Taking the 5-ply board as $\frac{1}{3}$ rd more than the 3-ply board . . .

Mr. Tarlton.—We anticipated this question. It doesn't work out in the proportion of $\frac{1}{3}$ rd more.

President.—It doesn't work out.

Mr. Tarlton.—Not in costs.

President.—If as you say the requirements of the Opium Department come to a lakh of boxes.

Mr. Tarlton.—It is a lakh of rupees and not of boxes.

President.—Can you not tell us the proportions of 3-ply and 5-ply chests?

Mr. Tarlton.—I can give it you for the last two years. In 1926 it was 5,000 and last year it was 1,500.

President.—We have not been able to obtain any information from the Customs Department about the imports.

Mr. Jenner.—This is strange because I think I am right in saying that this order has been handled by the Venesta Company for the last 2 years; possibly the boxes passed through the Customs Department as ordinary ply wood board.

Mr. Tarlton.—The Research Institute at Dehra Dun carried out boiling tests and soaking tests and then tests showed that our ply wood was not as good as the particular panel that was coming out from home. But we consider that this test of boiling for the ply wood for 9 hours and soaking for 8 days is absolutely unnecessary; we are now experimenting with a formula that will pass this test if this is the standard required, so far our laboratory tests have given good results.

President.—This opium chest will be for internal transport.

Mr. Tarlton.—I could not say but I think so.

Dr. Matthai.—The thickness of it is $\frac{1}{15}$ th.

Mr. Jenner.—Yes, $\frac{1}{15}$ th for the 5-ply chest and $\frac{1}{10}$ th for the 3-ply.

President.—Do you know the price at which the contract was placed?

Mr. Jenner.—Rs. 8 a chest I think.

President.—Do you mean at Ghazipur?

Mr. Jenner.—Yes.

President.—There is a fair margin, isn't there?

Mr. Jenner.—Yes, we should like the order at this price.

President.—On these figures it certainly looks as though if the specifications suited you, you could make these chests at a profit.

Mr. Jenner.—We certainly think so.

President.—What was the price of 3-ply chest?

Mr. Tarlton.—I think about Rs. 3-8-0.

President.—How do the opium chests compare with tea chests?

Mr. Tarlton.—They are smaller 13.3 sq. ft. Tea boxes 17.6 sq. ft., 4.3 square ft. less.

President.—Why does it cost so much?

Mr. Tarlton.—Special fittings and special panels.

President.—There is no lining.

Mr. Tarlton.—There are special corner pieces.

Mr. Jenner.—That price again is f.o.r., Ghazipur.

President.—If even so as there are no lining, there should be a considerable margin of profit.

Mr. Tarlton.—It is an order we should like very much indeed.

Dr. Matthai.—How would you like that to be done? Would you like us to recommend that all the orders should be placed by the Stores Department with the Indian industry or would you like us to put a duty of 25 per cent. on opium chests and leave that to work itself automatically?

Mr. Tarlton.—We should like you to recommend that the boxes should be bought in India.

Dr. Matthai.—In that case we would have to fix a maximum price and leave you to compete with the Assam Railways and Trading Company, the tender being placed in India on a competitive basis.

Mr. Tarlton.—Yes, perhaps it would be better to go in for 25 per cent. duty.

President.—If there was no duty on 3-ply wood, would not there be a difficulty in the Customs? Might not the ply wood be imported and then cut up into sizes for opium chests.

Mr. Tarlton.—There would be the possibility of that so it would be better if an import duty was introduced.

The Assam Saw Mills and Timber Company, Limited.

Continued on Thursday, the 11th August, 1927.

Supplementary Statements.

Mr. Tarlton.—Mr. President, we have brought further information on a few points raised this morning. Here are two statements one showing the total amount of money remitted to the Veneer Mill and the Meekla Mill over a year and another showing the amount of tea packed in different sizes of boxes.

Dr. Matthai.—Supplementary Statement No. 2 is, I suppose, the total working expenses.

Mr. Tarlton.—Yes.

Dr. Matthai.—It includes something more than labour items and timber items.

Mr. Tarlton.—When building a Tram Line, the earthwork will be included.

President.—This would include your supervision charges.

Mr. Tarlton.—Yes, and Indian establishment.

President.—So I take it that mainly in one form or another it is wages.

Mr. Jenner.—It is the actual money which is being circulated in the North East Frontier Province.

President.—Does it include stores?

Mr. Jenner.—Stores are all purchased in Calcutta and sent up.

President.—It would be included in that.

Mr. Jenner.—No.

Dr. Matthai.—Stores and European supervision are excluded practically.

Mr. Tarlton.—Yes.

President.—As regards Supplementary Statement No. 1 showing the amount of tea in the different boxes—are these different boxes used for different kinds of tea like broken orange peko, etc.?

Mr. Tarlton.—Yes.

President.—So that they have separate kinds of boxes for separate kinds of tea.

Mr. Tarlton.—Yes.

President.—These are the weights of tea in the different sized boxes.

Mr. Jenner.—Yes. These figures are not entirely accurate, but they are what may be called an average figure.

President.—On all these other points you will let us have information later and we will examine you some time next week.

Mr. Tarlton.—Yes.

Supervision Charges.

Mr. Jenner.—There is one other point I want to clear up. You remember that you spoke about supervision yesterday. We got a figure of As. 2-3 on the outturn. That includes Rs. 4,900 for the Indian establishment, and the figures are for 8 months up to May, 1927—it is for 8 months and not for the whole year.

President.—Could you give us the details of your supervision charges?

Mr. Tarlton.—We have one Manager on Rs. 1,200, and two European Assistants, one on Rs. 750 and another on Rs. 650 a month.

President.—This is all the European staff.

Mr. Jenner.—Yes.

Mr. Tarlton.—In addition there is the Forest Officer.

President.—He is charged direct to timber.

Mr. Tarlton.—Yes.

President.—He does not come under the head supervision?

Mr. Tarlton.—No.

President.—Then, there is the Indian establishment.

Mr. Tarlton.—Yes, they are the clerks in the office.

President.—In what way do they undertake supervision?

Mr. Tarlton.—They do not supervise but for the purpose of our accounts the Indian establishment is shown under the heading of supervision.

Dr. Matthai.—For the purposes of this statement, you have included a sum for the Indian staff.

Mr. Tarlton.—Yes.

Dr. Matthai.—What is the figure you gave?

Mr. Tarlton.—Re. 0-2-3 per box.

President.—I want to know the actual amount.

Mr. Jenner.—Rs. 4,900 for 8 months.

President.—That is equal to Rs. 7,350 a year.

Mr. Jenner.—Yes.

President.—I don't think that your figure is correct. Taking the output as 3 lakhs of boxes, I worked it out and got a figure of 2-04 annas.

Mr. Tarlton.—According to our figures, that 2-04 annas is not correct. If you took the output for the year it would be according to our calculations, 320,000. We have taken actual figures for the first eight months, viz., 239,000 divide this amount by 239,000. We get 2-27.

President.—The reason for your supervision charges being slightly higher than they would otherwise be is that one of your men has gone on leave. If he had not gone on leave, you might reasonably expect that your supervision charges would be lower.

Mr. Tarlton.—The men are given leave every three years.

President.—What I mean to say is this. You let a man go on leave for six months. Instead of taking that extra expenditure in one year, it would be reasonable to spread that over three years.

Mr. Tarlton.—Yes.

President.—You would take that point into account in your production of 5 lakhs of boxes. This cost of a tea chest is so small that it really becomes a matter of pices.

Dr. Matthai.—In the statement that we have asked for 500,000 boxes, it would be better if you could give us your estimate of the reductions possible on increased output as well as like improved practice during the next 6 or 7 years.

President.—I think that it would be useful if you gave it in a form like this. You take your estimate under the various heads on a production of 5 lakhs of boxes and have two columns showing the reductions over the 1927 figures: In the first column on account of better practice and other reasons and in the second column on account of mere increase in output. I think that you can distinguish between the two fairly clearly.

Mr. Tarlton.—Yes.

President.—As regards the question of wages which is really very important, we shall have to put it off to next week. By that time we hope that your figures will be ready.

Mr. Tarlton.—Yes.

Overhead charges—Replacement value of plant, etc.

President.—Question 10 in the questionnaire deals with overhead charges. What we are trying to get at is the cost of replacement at present rates of your plant and machinery and buildings. We do not take your capital account

but what would be considered the reasonable cost for establishing a factory of comparable capacity at the present time.

Mr. Tarlton.—That is the way we have understood the question.

President.—You say that the present cost of a factory having the same output as yours would be Rs. 9,26,869. That appears to be a very close estimate. Could you give us the details of that?

Mr. Tarlton.—Yes.

President.—Have you got the details here with you.

Mr. Tarlton.—Yes (handed in).

President.—The first thing that strikes one about this is your estimate for buildings. In your block account you actually show Rs. 2,47,060. But I take it that you have shewn here the actual cost of constructing the buildings at present.

Mr. Jenner.—Yes, the cost at which we can put up the buildings to-day.

Dr. Matthai.—It is less by about 60,000 rupees.

Mr. Tarlton.—Rs. 3,66,000 was the original figure.

President.—Very largely your buildings consist of steel work.

Mr. Tarlton.—The buildings of the factory consist of steel work.

President.—What proportion of this cost of buildings represents the factory?

Mr. Tarlton.—If you require details we can give them to you.

President.—I should like to know how much of this cost would approximately represent the buildings of the factory and how much outside buildings.

Mr. Tarlton.—We can let you have it.

President.—After all steel work is the main thing in works buildings, that is the most expensive item.

Mr. Tarlton.—Yes.

President.—And cement is another expensive item.

Mr. Tarlton.—Yes.

President.—In the last 7 or 8 years, the cost of these items has come down considerably.

Mr. Tarlton.—That is so.

President.—I think that it would be quite reasonable to say that your outside buildings would probably cost to-day very much what it cost you to put them up.

Mr. Tarlton.—We have considerably increased this original storage room.

President.—You will have the details of the money spent on the buildings since you started.

Mr. Tarlton.—I do not know whether we could give you details from the beginning, we have the figure in total.

President.—As long as we know what your total charges on the buildings are, that would do for our purposes.

Mr. Tarlton.—We shall be able to give you the figure. It must be remembered that on a production of 5 lakhs of boxes we shall require more space for stacking and drying. We shall show how we arrive at that figure.

President.—Next week if you could give us the figures showing how exactly you arrive at your conclusion, it would be useful.

Mr. Tarlton.—Yes.

President.—In your reply you say that the present day cost would be Rs. 9,26,869. But it does not tally with the total of the details you give. It ought to be really Rs. 10,30,635. How did you get this Rs. 9,26,869?

Mr. Jenner.—This was a typist's error, the total should be Rs. 10,30,635.

Dr. Matthai.—These figures for the plant, are they based on current quotations for veneer machinery?

Mr. Tarlton.—They are based on the present day costs. In anticipation of this question we obtained estimate of a new factory from home.

Dr. Matthai.—Your machinery, most of it, was bought originally in the United States.

Mr. Tarlton.—That is right.

Dr. Matthai.—May I take it that the present day replacement value of your plant that you give here corresponds to the present rupee prices of American machinery?

Mr. Tarlton.—That is so.

Dr. Matthai.—You can get your plant, the whole of it, from the United Kingdom, can't you?

Mr. Tarlton.—I doubt if we could purchase what we wanted from the United Kingdom.

Dr. Matthai.—From John Pickles' you can get, I think.

Mr. Tarlton.—Our new figures are quotations from Pickles'?

Dr. Matthai.—So that you have taken into account the current American quotations as well as British quotations?

Mr. Tarlton.—We have obtained British prices and an American price for the Dryer.

Dr. Matthai.—Generally how do American machinery prices compare with British in the veneer business?

Mr. Jenner.—We have not got current American prices except for an automatic Dryer.

Mr. Tarlton.—There is very little difference between American prices and English prices.

Dr. Matthai.—There is another point also that might arise. I understand there is a good deal of veneer business being done in Germany and apparently also machinery being manufactured in Germany. Would Continental machinery be less expensive than American machinery or English machinery?

Mr. Tarlton.—It is probable that we should buy machines which have been found to be successful.

Dr. Matthai.—This estimate that you have given is rather interesting because we adopted a certain method of working down the value of the tinplate plant in our Steel report. It was purchased at about the same time as your machinery and in the same country and working by that methods on your original figures, we reach the same result as you give here.

President.—You would probably agree that the rates for the Tinplate Co's. machinery and buildings and so on have increased in very much the same proportion as the rates for your machinery and buildings?

Mr. Tarlton.—Yes.

President.—So that if we followed the exact lines that we followed in the case of the tinplate plant, it would give a satisfactory result?

Mr. Tarlton.—We have gone very carefully into these figures so as to give you a very fair idea of the cost of a new plant.

President.—I think we might just show you the method we adopted in the case of the Tinplate Company. If you will look at paragraph 195 of the Steel Report that will give you some idea of the method adopted there.

Mr. Tarlton.—I take it you arrive at this figure by taking the present day price as against the price paid then.

President.—The fall in price of your machinery and plant would be much the same as that of the Tinplate Company.

Mr. Tarlton.—Yes.

President.—I would like you just to look through the statement of the Assam Railways and Trading Company as regards their plant. I am afraid their statement of the machinery is not quite intelligible to me. You may be able to throw some light on it. If you would glance through their state-

ment you will find they have mentioned some machines which do not appear in your estimate.

Mr. Tarlton.—Except in a few essentials they are almost the same?

Gluing process.

President.—The chief difference noticeable between the two factories is that the Assam Railways and Trading Company has adopted the hot gluing process which the Assam Saw Mills and Timber Company uses the cold process. The Assam Railways and Trading Company's output is limited by the number of hot presses installed. In other respects, if they were to abandon the hot process and adopt the cold process, there would not be very much difference, would there?

Mr. Tarlton.—I don't think there would be very much difference. I have no idea what they have got in the shape of buildings.

President.—They are very much of the same size; the price of these machines is lower than yours—they were ordered in 1922, so their price will be some guide to us in trying to work out the present cost of replacement.

Dr. Matthai.—The cold process would require much more space, would it not, for storage and so on?

Mr. Tarlton.—Yes, they would require more space.

President.—If you had to find extra accommodation for your ply boards for drying and had to extend your buildings, the extensions would not come to a very large amount. I mean it would not be a question of lakhs; it would be only a question of thousands, would it not?

Transport charges.

Mr. Tarlton.—Yes. How is the timber brought from the forest to the factory they have got no engine or trolleys shown in the statement. Do they use locos?

President.—Yes.

Mr. Tarlton.—That is not shown in this statement.

President.—I see what you mean, namely that they have got nothing down here for locomotives or winches.

Mr. Tarlton.—That is so. I was wondering how they bring the timber to the factory. We bring the timber from the River by locomotive. On the river bank we have winches to load the timber on to the trolleys. In their statement the Assam Railways and Trading Company do not make any provision for this.

President.—That is done by their own Railways. We will ask them about it when Mr. Joseph comes here to give evidence.

Mr. Tarlton.—We have 2 locomotives, 2 winches, 30 trolleys and 3 miles of tramway track.

President.—We would like to have copies of those details?

Mr. Tarlton.—We will let you have them.

Working Capital.

President.—As regards working capital you say in answer to question 16 "Normally a period of 5 months takes place between production and payment, though this is longer in the latter part of the year as very few boxes are delivered during August, September and October." Do they pay by bills?

Mr. Jenner.—No. Our actual terms on our contract forms are 30 days after receipt of the boxes in the garden. That is not stuck to very carefully, and it rather depends upon the garden manager. The agents down in Calcutta do not pay our bills until the garden manager has passed them. In certain cases a garden manager will do this so soon as his boxes arrive in other cases there is a delay of two or three weeks. But we keep in very close

touch with the agents here and there is really very little delay in getting our bills passed.

President.—Exactly what do you mean when you say "a period of 5 months takes place between production and payment"?

Mr. Jenner.—The busy season is December, January and February. We should probably send out in December boxes manufactured in October. They would take anything from two to three weeks to get to the gardens and it would be another month or so for the bills to be passed. I think it would take at least about 4 months before we got payment. At present (in July) we have practically completed our deliveries, and we shall not start delivering again until November and then in December, January, February, March and April we deliver large quantities and so I have taken five months as an average for the year. For instance boxes that we are manufacturing at this time of the year would probably not get paid for till December or January but in the busy part of the year it would take 3 to 4 months only.

President.—The position really is that production goes on at the factory more or less at the same rate right through the year.

Dr. Matthai.—All the sales take place in 3 or 4 months.

Mr. Tarlton.—From December to July we are delivering.

Dr. Matthai.—The really busy season you say is December to May.

Mr. Tarlton.—Yes, big quantities then, and smaller quantities June and July. This year we could deliver up to June very freely.

President.—When you pay your accounts, do you pay by 30 days bills?

Mr. Tarlton.—For stores?

President.—Yes.

Mr. Tarlton.—We get rather a longer period of credit.

President.—So that to some extent the fact that you get longer credit cancels the interest which you will have to pay during the time you are not paid for your boxes.

Mr. Tarlton.—I don't quite follow the percentage proportions. Stores are not of great value the credit we get here does not balance the outstandings for boxes deliveries.

President.—Of course labour and timber you pay for after the labour has completed its task.

Mr. Tarlton.—Yes.

President.—Do you pay monthly wages?

Mr. Tarlton.—We pay weekly wages.

President.—So that to some extent that counterbalances the amount of your outstandings.

Mr. Tarlton.—To a small degree.

President.—Not fully.

Mr. Jenner.—No. The biggest part is fittings and linings. We pay after 7 days, whereas we get our money back after three months.

President.—Could you give us the average amount under three heads during the year? Stock of finished articles, I think you have given.

Mr. Tarlton.—Yes.

President.—Stores of all kinds which would include fittings.

Mr. Tarlton.—We send fittings and linings them off from Calcutta as they are required.

President.—You never have these in stock.

Mr. Tarlton.—No.

Mr. Jenner.—We pay 7 days after the fittings have been despatched, but we don't get our money back for at least 3 months.

President.—That will come under outstanding accounts.—That will not come under stores. The three heads under which we want information are: (1)

2
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stock of finished goods, (2) stores of all kinds which would include fittings and (3) your outstanding accounts during the year.

Mr. Tarlton.—We will supply these.

President.—Is there anything else in addition to these heads which would come under working capital?

Mr. Tarlton.—You require information under stocks, stores and outstanding accounts?

President.—Yes. That represents all the money outstanding in any one year?

Mr. Tarlton.—I think those three headings will cover everything.

President.—You say that your working capital varies between Rs. 2,85,000 and Rs. 4,25,000. For the sake of argument let us assume that the mean of the two (say 3½ lakhs) is the working capital on your present output. We have to decide what would be the working capital for an outturn of 5 lakhs of boxes. Would it be reasonable to raise the working capital in the same proportion as the output is raised.

Mr. Tarlton.—We will give you the actual figure.

Dr. Matthai.—At the bottom of page 12, I notice from that list you omit supervision deliberately, because supervision does not increase.

Mr. Tarlton.—Supervision we shall show you under the detailed heading when we are giving you the cost on an output of 5 lakhs of boxes.

Dr. Matthai.—Your statement here is correct in the sense that when the output increased from 3 lakhs to 5 lakhs, it would not necessarily mean an increase in your supervision charges.

Mr. Tarlton.—Not necessarily so.

Dr. Matthai.—Therefore it is right that supervision charge has been omitted from the list.

Mr. Tarlton.—Quite so.

President.—You give Rs. 1,52,000.

Mr. Tarlton.—Yes.

President.—Actually in strict mathematical proportion on the assumption that your requirement is Rs. 3½ lakhs on an outturn of 3 lakhs of boxes, the amount would be Rs. 2.3 lakhs.

Mr. Tarlton.—Yes.

Dr. Matthai.—When you say the working capital varies from Rs. 2,85,000 to Rs. 4,25,000, may I take it that as far as the busy season is concerned, it stands at Rs. 4 lakhs and for the rest of the season it stands at Rs. 2,85,000. Supposing I suggest that your busy season is 4 months and the rest is 8 months, would I be right?

Mr. Tarlton.—There is a very big rise and fall. We have given you our lowest and we have given you our highest. We could from past experience take out actual figures month by month from our books if it is an important point.

President.—It is not an important point. Probably the figure would work out from 3 to 3½ lakhs at present. Taking the interest on that and dividing by the number of boxes, the difference per box would not be large.

Dr. Matthai.—I am trying to see how you got this figure of Rs. 6,36,597 as the working capital for all the concerns. In answer to question 12 (1) you say "the working capital of Rs. 4,13,931 required on 30th September, 1926 rises to Rs. 6,36,597." I am trying to see the point of that calculation. You begin with Rs. 4,13,931. At that date your overdrafts amounted to Rs. 5 lakhs and odd. The difference between that must have been spent on other account than working expenses.

Mr. Tarlton.—I see your point.

President.—This Rs. 6 lakhs is both for veneer mills and the other mills.

Mr. Tarlton.—Yes.

President.—What is the rate of interest you pay on working capital?

Mr. Tarlton.—The minimum is 5 per cent.

President.—Has the bank rate been fairly constant at 5 per cent.?

Mr. Tarlton.—Last year it was quite good.

President.—In the previous year?

Mr. Tarlton.—Two years ago it was 8 or 9 per cent.

President.—Over a period of years the bank rate might be taken as somewhere about 6 per cent.

Mr. Tarlton.—I think so.

President.—As regards this particular rate which you got from the Imperial Bank with a minimum of 5 per cent., do you consider that it is a somewhat unusual figure?

Mr. Tarlton.—It has been a good rate. We look upon it as a good rate.

President.—Is that because the Company is backed by the credit of Messrs. Bird and Company?

Mr. Tarlton.—Yes.

President.—Taking a new factory which is started say by a firm of Managing Agents who have not got the same reputation as Messrs. Bird and Company, what would be the rate of interest?

Mr. Tarlton.—It is likely that they would have to pay one per cent. above the bank rate.

President.—We took in the case of the Tata Iron and Steel Company an all round rate of 7 per cent. for the working capital.

Mr. Tarlton.—7 per cent. seems to me to be on the high side.

Dr. Matthai.—6 per cent. you think would be a fair rate.

Mr. Tarlton.—Yes. For the last 3 years Messrs. Bird and Company have not charged any interest on the money they have loaned to this Company. We should not take that as a reasonable proposition for a new Company coming in.

Mr. Tarlton.—We can't go on advancing without being covered by a reasonable rate of interest.

Head Office Expenses.

President.—The annual amount of the Head Office expenses you say is Rs. 9,000, but actually you have not charged that.

Mr. Tarlton.—No, not for 3 years.

President.—How is that amount calculated?

Mr. Tarlton.—The Company has an agreement to pay the Managing Agents Rs. 750 a month.

President.—And that covers what?

Mr. Tarlton.—Calcutta expenses.

President.—Is that worked out proportionately?

Mr. Tarlton.—It is a very low figure, we expected to recompense ourselves from the 10 per cent. on profits.

President.—Rs. 9,000 per annum, do you consider that it covers your Head Office charges?

Mr. Tarlton.—Nothing like it.

Dr. Matthai.—Your work here would cover general administration, won't it?

Mr. Tarlton.—Very much more than that.

Dr. Matthai.—I am trying to see what is the sort of work which is done by Messrs. Bird and Company in connection with the Assam Saw Mills. It means general administration, arranging of finance and organising the sales.

Mr. Tarlton.—Yes.

Dr. Matthai.—It means also a certain amount of technical advice.

Mr. Tarlton.—Yes.

Dr. Matthai.—Which is really outside the usual scope of a Managing Agency.

Mr. Tarlton.—If we have to go outside for super technical advice, the Company would pay for that.

Dr. Matthai.—For instance Dr. Spencer does experimental work on behalf of the Assam Saw Mills and that would be included in this.

Mr. Tarlton.—He would draw travelling expenses. The Company makes a small allowance each month to his department and gets Dr. Spencer's advice.

Dr. Matthai.—Mr. Jenner's services are charged to the Company.

Mr. Tarlton.—His services are paid for by this Managing Agents.

Dr. Matthai.—This charge of Rs. 9,000 would cover the services which Mr. Jenner gives.

Mr. Tarlton.—It would go towards paying him.

Dr. Matthai.—So that actually for covering your out of pocket expenses you rely on this 10 per cent.

Mr. Tarlton.—Yes.

Dr. Matthai.—When you speak of net profits, you mean before payment of depreciation.

Mr. Tarlton.—Yes.

Dr. Matthai.—Is that charged by other Companies?

Mr. Tarlton.—Very few monthly allowances pay staff salaries.

Mr. Tarlton.—For instance, Mr. Jenner's department is run by himself and another assistant and Indian staff. Our allowance covers only a very small proportion of what we are actually paying.

President.—Could you give us a figure which would represent the actual head office expenses, that is to say a figure which would in normal years be covered by this Rs. 9,000? It would be more satisfactory from our point of view if you could give us what the head office expenses of an average company of this kind would be per year.

Mr. Tarlton.—Yes.

President.—If you could tell us the services performed by the managing agents and tell us what it really costs your company to perform those duties, we might get some idea.

Mr. Tarlton.—We will let you have the information.

Dr. Matthai.—We were once told that the usual remuneration for managing agents in Calcutta was roughly two per cent. on the gross receipts.

Mr. Tarlton.—It would be a poor look out for Assam Saws if we did that.

President.—According to business practice a firm must be reimbursed for the head office expenditure, but something more may also be expected for its services.

Mr. Tarlton.—Yes.

President.—What would be the amount?

Mr. Tarlton.—5 to 7 per cent.

President.—Over and above the actual head office expenses on the net profits.

Mr. Tarlton.—It is seldom the monthly allowance covers office expenses.

Dr. Matthai.—This 10 per cent. on the net profit is in view of the fact that the actual charge on account of your expenses is only Rs. 9,000.

Mr. Tarlton.—That is so.

Freight charges from Murkong Selek.

President.—Now turning to the question of freight to the main markets, these are the main districts to which you have exported, viz., Dibrugarh, Tinsukia, Tezpur, Sylhet, Darjeeling and the Dooars.

Mr. Tarlton.—Yes.

President.—The rates for tea chests from Calcutta fall under two heads, viz., despatch service and cargo. How are tea chests despatched?

Mr. Tarlton.—It entirely depends on the buyer.

President.—We were told up in Shillong is that there is rough handling in these steamers.

Mr. Tarlton.—That is so.

Dr. Matthai.—What difference does it make in point of time?

Mr. Tarlton.—Quite a lot.

Mr. Jenner.—The despatch service, from Calcutta to Dibrugarh takes about 18 days, that is scheduled time, and cargo service will take anything up to 2 months.

President.—There is no cargo service to Sylhet, Darjeeling and the Dooars.

Mr. Jenner.—Part of the way from our factory to Darjeeling and the Dooars will be by steamer, that is up to Dhubri, and the rest will be by railway. But we get a through booking rate. As regards the freight from Dibrugarh to Chittagong, the Steamer Company quoted the same freight both by despatch service and by cargo service.

President.—If we wish to compare the rates that you have to pay with the freight which the importers have to pay, would it be fair to take the mean between the express and cargo rates?

Mr. Jenner.—We should like to consider that.

President.—If you could give us any information on that we should be grateful.

Mr. Tarlton.—Yes. But the rates charged by the Dibrugarh-Sadiya Railway are very high.

Mr. Jenner.—We can give the percentages of our own despatches.

President.—You give a flat rate. That, I suppose, is the average rate.

Mr. Jenner.—Those are actual charges. The rate that we have to pay from Murkong Selek to Dibrugarh is very high.

President.—You send your boxes to Dibrugarh and Assam by despatch service.

Mr. Jenner.—From Murkong Selek to Dibrugarh we pay a higher freight than the despatch rate. From our factory to Dibrugarh, though the boxes are actually shipped in barges which are looked upon as cargo vessels the actual freight is out of all proportion to the despatch service on the main line.

President.—What about Tinsukia?

Mr. Tarlton.—If we were despatching boxes to Tinsukia still we would pay the high rate from our factory to Dibrugarh.

President.—As far as you are concerned, you have no express and cargo.

Mr. Jenner.—No. The freights are so different from Calcutta. From Calcutta there are two rates for express and cargo but when we send downwards from Murkong Selek we have to pay a high freight and they charge a flat rate right through.

President.—We have got to arrive at some conclusion as to the relative position of the Indian manufacturer and the importer of tea chests as regards freight. We want to know whether you have an advantage or not in that respect. Apparently your main markets consist of these 6 districts. Supposing we take the production of tea in each of these districts and arrive at the number of tea chests required by these districts at the rate of 100 lbs. a chest, and then take a weighted average of these rates and get a single rate for you and for the importer, do you think that that would be a fair method?

Mr. Tarlton.—That would be fair. But you have to take the two rates into account. You must take the express rate and the cargo rate.

President.—In some way or other we shall have to arrive at a single rate for Dibrugarh, Tinsukia and Tezpur. On that perhaps Mr. Jenner will be able to throw some light.

Mr. Jenner.—There is only a flat rate for the distances between Murkong Selek and Dibrugarh and Tinsukia; the high feeder steamer rate from Murkong Selek to Dibrugarh and the ordinary rail rate from there to Tinsukia.

President.—As regards the importer, the express rate is Rs. 3-10-0 and the cargo rate is Rs. 2-7-0. Somewhere between the two extremes we shall have to take the rate.

President.—We should have no difficulty as regards Darjeeling and the Dooars. Only to the first three districts named above the importers are able to send by express or cargo and we shall have to arrive at some sort of mean between the two.

Dr. Matthai.—These districts that you give are recognised tea districts for which there would be no difficulty in getting figures of the tea crop. The Tea Association would have figures regarding the total tea crop which would correspond to each of these six districts.

Mr. Tarlton.—Yes.

Dr. Matthai.—There would be no difficulty about that, I think.

Mr. Tarlton.—No.

Dr. Matthai.—Actually which is the best market among these six? Which is the market to which actually you have sent the bulk of your consignments of tea chests during the past three or four years?

Mr. Tarlton.—I shall give you figures this afternoon.

Dr. Matthai.—I want to see how the consignments have been distributed among these six districts.

Mr. Tarlton.—Yes.

Dr. Matthai.—We were talking about rubber chests yesterday. Could you tell me approximately what the freight is from Murkong Selek to Chittagong?

Mr. Jenner.—I can give you that in the afternoon. I have got the figure from Murkong Selek to Chittagong.

Dr. Matthai.—You gave a figure of about eight annas.

Mr. Jenner.—I said I thought that it would be about eight annas. At that time I was thinking of our own shipments from Sylhet to Rangoon. But of course if we ship our rubber boxes from Murkong Selek it might be a different freight altogether.

Makes of imported chests.

President.—As regards the imported chests, what are the chief different makes of chests against which you compete? We have got a certain amount of information on the subject from the Customs Department.

Mr. Jenner.—The Acme Company have two classes of chests. The first quality box they call Imperial and the second quality Regent. The difference I think between the two is that they supply a heavier lining in the first quality and a lighter lining to the second quality.

President.—The difference in price is about three annas.

Mr. Jenner.—Yes. Then there is the Venesta Company, of which Messrs. Williamson Magor and Company are the agents. They have also two kinds of chests.

President.—What is the difference in price between the two kinds?

Mr. Jenner.—The difference in price between the first quality and the second quality is, I should say, about three annas. Then for the Luralda chests, Messrs. McLeod and Company are the agents. Messrs. Davenport and Company are the agents for Serdang chests. They have only one quality and the Planters Stores and Agency Company are the agents for Ajax and Hercules chests. There is a slight difference between these two chests on account of the lining.

President.—Do you compete with the better class or the cheaper class chest?

Mr. Tarlton.—With the better class chest?

President.—Can we leave out of account the second class chest in considering your application for protection?

Mr. Tarlton.—We have got to compete with both. Where we are negotiating with a firm which requires cheap chests, we have to compete there.

President.—How is your box considered in the market, best quality or second quality?

Mr. Tarlton.—Best quality.

Mr. Jenner.—Messrs. Andrew Yule and Company's Tea Department read me Extracts of a report from their brokers in London a few months ago on all the tea shipped in our boxes which arrived in London up to January 1927. 9 or 10 statements were read, at the end of each sheet was this remark "Packing good" or "Packing satisfactory." That had reference entirely to our particular chest.

Import prices.

President.—Of these imported chests which is the cheapest?

Mr. Jenner.—That is a very difficult question to answer.

President.—The price of these boxes vary and it is obvious if one box is quoted at a very low price, it would compete more strongly with the Indian industry, than the others.

Dr. Matthai.—Which of these boxes represents the bulk of the imports?

Mr. Tarlton.—Venesta and Acme.

Dr. Matthai.—Between the two which would be the bigger?

Mr. Jenner.—Acme I should think would be the bigger.

Dr. Matthai.—Taking the market quotations, quotations for Acme chests are a bit higher, are they not?

Mr. Tarlton.—It is difficult to say.

President.—In trying to determine the c.i.f. price, should we take Acme or Venesta?

Mr. Tarlton.—That is rather difficult to answer because the question of vested interests comes in.

Mr. Jenner.—Only this week I have come across imported boxes selling at Rs. 3-1-0.

Dr. Matthai.—We had a letter just a few days ago from the representatives of the Acme chests that they had information last week that the prices of these boxes were going to be reduced next season.

Mr. Jenner.—Our cable advice from London last week was that there would probably be a drop of 2 to 3d.

Dr. Matthai.—If we take your average realized price during the last season and take that as practically representing the price against which you are competing, would it be approximately right?

Mr. Tarlton.—I think that would be quite a fair way of arriving at the price.

Dr. Matthai.—Could you not give us your average realized price for 19×19×24 boxes during the last season over a period of four months?

Mr. Jenner.—If it is going to be published it is a point we must carefully consider.

President.—As far as we can see we hope to finish the report in September but even if any action is taken I don't imagine much can be done before the February meeting of the Legislative Assembly and by that time I dare say your prices for this year will be fixed and out of date. However there is no desperate hurry and you can think it over and let us have it in a week.

Mr. Tarlton.—If the average price would meet your case we will let you have that.

Dr. Matthai.—The average price during the last season for $19 \times 19 \times 24$ boxes.

Mr. Tarlton.—We are in the market for orders now; you want them on the basis of $19 \times 19 \times 24$?

Dr. Matthai.—Yes, because it represents the bulk of your output.

President.—We may of course have to consider the import prices as well. Would it be reasonable to take the mathematical average for all the makes on the assumption that we can get accurate information as to the c.i.f. price?

Mr. Tarlton.—I should think so.

Mr. Jenner.—The c.i.f. price may not mean much because the boxes are re-sold when they come out here. It would be much higher. Or again supposing an importer was competing with us for a large order he would cut his rate and that would lower the average rate on which you propose to base your figure.

President.—If you can suggest an alternative method we shall be glad. It seems fair to take the import figure and check it by any figure that you can give us and arrive at some figure on these lines.

Mr. Jenner.—That is to say chests invoiced out to different companies?

President.—Yes.

Mr. Jenner.—At what price would they invoice the chests for stock here? For instance Luralda and Hercules keep large stocks of boxes here.

President.—I imagine they would invoice them at the lowest rate otherwise they would have to pay customs duty at a higher rate.

Mr. Tarlton.—If we can have a copy of the Customs Office letter we can check the figures and then let you know.

President.—You can have that. We would examine you at a later stage and meanwhile you can consider the point.

Mr. Tarlton.—Thank you very much.

Dr. Matthai.—You have promised to give us a statement of the average price for $19 \times 19 \times 24$; can you add the next size also in the statement, namely $19 \times 19 \times 22$?

Mr. Tarlton.—Yes.

Low price of imported chests.

President.—One of your arguments for the very low price of tea chests is systematic dumping. Would you agree that the obvious explanation for the low price is the increase in the size of factories in Finland? According to your note the sizes of factories there have increased and there has also been a combination of manufacturers and the output has increased. Would not that necessarily mean reduction in costs?

Mr. Tarlton.—If the output is increased it has always a tendency to reduce costs.

President.—One of the reasons you put forward for this industry being an industry suitable for protection is that this industry is one in which increased production will mean increased economy.

Mr. Tarlton.—Increased production will certainly mean increased economy but so long as the manufacturers of boxes at home go on cutting into our rates with the idea of ultimately closing our factory we cannot sell our increased output. First of all although we are small we do definitely interfere with their bookings and bring their rates down below what they wish them to go and if we close down the Tea Trade would lose the advantage of being able to buy boxes locally, and again the most important point is that if we become a successful undertaking others would spring up in the country which would of course hit importers.

President.—Of course there is that aspect of the case, but at the same time the actual reduction in the price could be explained by better organization and increased output of the European factories.

Mr. Tarlton.—From what we know of the tea chest industry at home they have not developed to any great extent since 1912.

Dr. Matthai.—I thought a good deal of Venesta boxes are made from imported ply wood.

Mr. Tarlton.—Most of the Venesta boxes are, we believe, manufactured on the Continent.

Dr. Matthai.—It does not necessarily mean that they are out for killing the Indian industry. When you have an industry in which there is severe competition and overproduction these methods generally result.

Mr. Tarlton.—Only a year ago I travelled with one of the home producers and he said it was ridiculous that they were going on with these rates "We are losing money and you are losing money; why not form a ring and fix the prices." That means that they are selling far below their manufacturing costs.

President.—The market for things like panels, furniture, etc., for which there is a demand is considerable. It occurred to the Board that it is possible that the home market might be a remunerative one and that the material which perhaps is not quite suitable for that particular form of manufacture, could be used for tea boxes. It might be worth their while to sell all the tea boxes at a very cheap price in order to cover their overheads.

Mr. Jenner.—That is supported by a statement made by a manufacturer at home about 3 years ago. I was talking to him about the prices of tea boxes. It was his view that prices were coming down because more ply wood mills were being erected in Finland and which meant more scrap.

Mr. Tarlton.—Personally I can never look upon $19" \times 19" \times 24"$ panel as a scrap material.

President.—What about the smaller sizes?

Mr. Tarlton.—That of course is possible.

President.—There is another aspect too. If the home market for the other kinds of ply wood is a good one, it may be worth their while to cut prices for tea chests in order to get a market for their output.

Mr. Tarlton.—That is possible.

President.—The prices obtained for other kinds of ply wood is relatively higher.

Mr. Tarlton.—It is higher.

President.—One sees it is being used extensively in making hat boxes, portmanteaux and things of that kind.

Mr. Tarlton.—Yes; at the same time they must be looking upon the Indian tea box trade as not an unimportant one, because they are so keen that these in India concerns shall not be successful and they don't want others to spring up. There is no doubt that if one is a success, others are bound to come.

Dr. Matthai.—From the point of view will you please look at your answer to question 25 (1) where you give a statement of prices. You will find on these two typical sizes, $19 \times 19 \times 24$ and $19 \times 19 \times 22$, the difference between the highest and the lowest prices is higher in 1924 than in any subsequent year except in 1927 when it widens out again. It was As. 8 in 1924, As. 4 in 1925, As. 5 in 1926 and As. 13 in 1927. If you take 1920 to 1925 it practically stands at the same rate right through. What I am suggesting is this. In 1924 the Indian industry was actually set going or practically you started working on a commercial scale. Your products came on to the market in 1924 and then there was a big margin between their market quotation and the lowest price at which sales were actually made. Then for some reasons they closed up and then in 1927 for some reason widened out again.

Mr. Tarlton.—In 1925 the policy was to sell at a certain price and not to alter it.

Dr. Matthai.—What do you mean by 'policy'?

Mr. Tarlton.—We fixed a certain price and did not meet competition under that price.

Mr. Jenner.—1924 was the first year we sold. We introduced an entirely new type of box and we had to make it attractive in price so as to get it established.

Dr. Matthai.—Was that entirely as a result of action on your part?

Mr. Tarlton.—In 1925 certainly.

President.—Has there been any combination to increase prices before your firm started working in 1924?

Mr. Jenner.—Yes, during the war prices were very high.

President.—After the war.

Mr. Jenner.—Prices gradually came down. During the war they stood at a very high figure and then they came down.

Dr. Matthai.—In this original representation (9th June) that you sent us, if you look at paragraph 3, you will see that you give a statement of the value of ply wood chests sold by your Company.

Mr. Tarlton.—Yes.

Dr. Matthai.—Take the 1924-25 figure. The average per box is higher than the figure for any other year.

Mr. Tarlton.—Yes.

Dr. Matthai.—That was the year in which you say you adopted this particular policy.

Mr. Tarlton.—Yes.

Dr. Matthai.—Look at the previous table where you have the general Indian figure. Look at 1924-25. The total value of tea chests imported into India was higher than any previous year. It does not look to me that it was entirely as a result of your policy. What was your average realized price then?

Mr. Tarlton.—We do not know the price.

Dr. Matthai.—It is not likely that there would be any big variation.

Mr. Jenner.—You will notice that when we struck to our prices, our sales came down.

Dr. Matthai.—I notice that.

President.—When did you actually turn out tea chests?

Mr. Tarlton.—In 1923.

President.—You were booking orders from 1923.

Mr. Tarlton.—In 1923 we sold 18,000 boxes.

President.—In 1922 the price of imported chest was Rs. 5-14-0.

Mr. Tarlton.—During the war it was Rs. 10.

Protection claimed. Method by which it might be given.

President.—As regards protection, in your application you say you want either the present import duty of 15 per cent. without rebate plus bounty of As. 4 or an import duty of 25 per cent. without rebate. Actually these two rates are not the same. Taking the present price at Rs. 3-7-0, 15 per cent. on this, plus As. 4 works out at 23 per cent. I was wondering whether you gave that 25 per cent. merely as a sort of general guide.

Mr. Tarlton.—What we are trying to get is Rs. 3-11-0 a box.

President.—25 per cent. is a general indication.

Mr. Tarlton.—Yes.

President.—Whether it is 23 or 25 per cent. or any other figure, it is not a matter of particular importance.

Mr. Tarlton.—We have not in any way tried to balance the bounty figure against the percentage figure.

President.—Obviously whether you have a bounty or a duty, you want a price of Rs. 3-11-0.

Mr. Tarlton.—Yes.

President.—We need not take this figure of 25 per cent. as absolutely accurate to the last point.

Mr. Tarlton.—No.

Dr. Matthai.—It is approximately a protection of As. 8 on the ply wood that you want. On the fittings and linings and the panels the present duty comes to As. 7 and you want As. 4 more raising the total to As. 11. If you deduct the present duty on fittings and linings which is As. 3, it is As. 8 on ply wood. So on the ply wood in a tea chest you are asking for a total protection of As. 8 or an additional protection of As. 4.

President.—As regards the alternative methods suggested by you, have you considered the difficulty in connection with the question of rebate. Let me put it this way. If it is proved that under the Sea Customs Act as it stands at present, it would be possible for the importing firms to obtain a rebate at any rate on the panels, even if we recommended a duty of 25 per cent., it would not be of much use to you.

Mr. Tarlton.—None whatever.

President.—The question of drawback is a difficult one. I may say at once it raises questions in connection with other trades.

Mr. Tarlton.—It certainly does.

President.—There is also another aspect of the case. If you disallow the drawback on tea chest re-exported, it might possibly hit some firms claiming the rebate on tea chests sent to Ceylon or to the Malay States. It would be unreasonable to prevent a firm in India from re-exporting tea chests to Ceylon and by disallowing the drawback.

Mr. Tarlton.—No, not in the case of a re-export to Ceylon, because Ceylon cannot be looked upon as part and parcel of the Indian Empire.

President.—But it is not customary to tax through trade. If you merely import tea chests into India as an agent and re-export, merely taking an agents commission and making no use of the tea chests, it seems rather unreasonable to frame a rule preventing you from claiming any sort of drawback.

Mr. Tarlton.—I don't think there is any re-export.

Dr. Matthai.—Take a case like this. Supposing you have an individual who owns gardens in South India and Ceylon. He imports a few tea chests for his gardens in India and any surplus that is left over he sends across to Ceylon.

Mr. Tarlton.—I cannot imagine anybody bringing the boxes right up through an Indian port and then sending them back to Ceylon.

President.—Not as a big proposition?

Mr. Tarlton.—Nor even on a small scale, it would never pay him to do it.

President.—A firm may over-estimate its requirements and when it finds that it has a few surplus boxes, it may send them to Ceylon.

Mr. Jenner.—All gardens have to carry stocks and these people would carry them over to next season.

President.—They might, but it might also be inconvenient.

Mr. Tarlton.—If a man had made a mistake and had ordered more than what he required, it would not come to very much. I cannot imagine a man ordering too many boxes with the object of sending them over to Ceylon.

President.—Not as a business: But it will be extremely hard on anybody, if a legitimate transaction like that is going to be affected.

Mr. Jenner.—The remedy is to buy the indigenous box as and when he requires it.

President.—Ordered from Assam at a higher cost?

Mr. Jenner.—Yes, we could ship month by month so that big stocks need never be carried.

Dr. Matthai.—Apart from cases of that kind, supposing we decided to disallow this drawback, it would mean amending the Sea Customs Act. Section 142 has to be amended.

Mr. Tarlton.—Yes.

Dr. Matthai.—What precisely is the ground? What are the sort of cases in which you would say that the drawback should be disallowed.

Mr. Tarlton.—That is a big question to answer off hand. But in the case of tea boxes if the drawback of seven eighth is allowed, it would be impossible to develop the ply wood industry in this country. It could not be done.

President.—If we make a recommendation that the drawback should be disallowed, the whole system of drawback in this country is raised?

Mr. Tarlton.—Yes.

President.—Questions will be raised such as whether the system of drawback should be abolished as regards all protected industries, or whether if an article is partly used in India and then re-exported, drawback should be allowed.

Mr. Tarlton.—Yes.

President.—Have you considered any alternative to your two suggestions?

Mr. Tarlton.—Our original suggestion was this. When the export duty of Rs. 1-8-0 per 100 lbs. of tea, was in force we suggested that any one packing in indigenous boxes should get a refund of this Rs. 1-8-0 and so encourage people to buy Indian boxes instead of imported boxes.

President.—Supposing something on these lines is suggested the import duty on the panel portion of a tea box should be abolished and in its place an export duty levied which is calculated on the number of pounds of tea contained in a box and the export duty would not be charged on tea packed in boxes of Indian manufacture.

Mr. Tarlton.—That was really our first suggestion.

President.—Do you consider that it is feasible still?

Mr. Tarlton.—We thought so at the time we sent up our application. It is the one scheme which we would like.

President.—As far as you are concerned, you think it would do.

Mr. Tarlton.—Yes, and it should suit the tea trade too—at least those who have no interests in the imported boxes.

President.—You realise that a scheme of that sort would mean that so far as the market inside India is concerned, the tea chests coming in with no duty would be able to compete more severely with you in India itself. You will get some advantage in the export market but so far as tea consumed in India is concerned, the imported chests would be better off.

Dr. Matthai.—The President's suggestion is this. The duty on the panels in a tea chest will be removed and in place of that, there will be an export duty corresponding to the protection required, levied on tea which is packed in chests made of non-Indian ply wood.

Mr. Tarlton.—That was more or less our original suggestion.

Dr. Matthai.—Of course there is this difficulty about it and it may prove to be a very serious difficulty. The export duty has just now been done away with and objection might be taken to it that it is being introduced in a new form.

Mr. Tarlton.—Have we sent you a copy of our original suggestion?

President.—I have seen it in the correspondence with the Government of India.

Mr. Tarlton.—We thought that a scheme like that would appeal very much to the trade here—at least to those who have no vested interests.

President.—This is a matter which we should discuss with the Tea Association. It may be possible to so arrange as to introduce an export duty on the lines suggested now which will suit your industry. If such a measure of protection will not impose any additional liability on the tea industry, I presume that the tea trade will have no particular objection to that.

Mr. Tarlton.—That part of the tea trade without any vested interests would have no objection.

President.—At the present time there is an export cess levied on tea of six annas per 100 lbs. of tea. That cess is made over to the Tea Cess Committee for propaganda work. Supposing it is suggested that a portion of the export duty levied on tea packed in foreign boxes is earmarked and made over to the Tea Cess Committee for propaganda purposes. The Tea Cess Act comes up for review next March and then it would be possible for the tea cess to be reduced by a corresponding amount. Do you see *prima facie* any objection to it?

Mr. Tarlton.—Our policy has always been to make this mill a success without imposing on the tea trade any added expense and it was because of this that we brought forward our first suggestion that to those who packed in box the export duty should be remitted. It was only after the export duty was cancelled, that we had to look round and find other means of obtaining some measure of protection to enable this company to continue to exist.

President.—There are two objections to that. One is, as Dr. Matthai suggested, that the export tax has just been removed.

Mr. Tarlton.—Yes.

President.—If it is now reimposed in a different shape, there might be some protest against it. On the other hand do you think that is partly met by the fact that the tea trade is not placed in a worse position?

Mr. Tarlton.—Any suggestion that is made to keep alive this industry will meet with a strong objection from the parties in the tea trade that may have other interests.

President.—Naturally?

Mr. Tarlton.—On the other hand, I feel that part of the trade which thinks that it is advisable that this company should be kept going would welcome any reasonable proposition and I believe many have the view. "We paid in the past very big rates for our boxes and in all probability we should have to pay those rates again if the local factories were closed down."

President.—There is the second objection and it is an objection that we should like you to consider particularly. If the import duty is removed, even though an export duty is put on to enable you to get the export market, the home market would be subject to much more severe competition. Some 40 millions of lbs. of tea is consumed in India. Of course your main market for tea chests is abroad.

Mr. Tarlton.—Yes.

President.—Would it not mean that if we took off the 15 per cent. duty on the panels, the imported chests would then be able to sell at a price which would be considerably less than the present price.

Mr. Tarlton.—Yes, but it is doubtful whether they would do so.

President.—So that as regards 1/10th of the market you might be to some extent in a worse position, not entirely because the tea companies which are situated close to your factory may still buy from you because there is the freight advantage.

Mr. Tarlton.—Yes. You are thinking of removing the present duty of 15 per cent.

President.—On the panels only?

Mr. Tarlton.—Yes, and against that you are thinking of imposing an export duty on tea shipped in other than Indian boxes.

Mr. Tarlton.—Of course to make it safe we would suggest that the 15 per cent. duty remains and the difference is made up by an export duty on tea shipped in other than in Indian boxes.

Dr. Matthai.—Then you are up against the whole problem of drawback.

President.—Would not the very fact that you do not have to pay a duty if you export in Indian boxes bring the existence of your factory prominently to the notice of the public.

Mr. Tarlton.—Yes, but if you remove the 15 per cent. duty we should want a larger figure than we ask for that is 8 annas on the panels, because we have already got protection to the extent of 15 per cent.

Dr. Matthai.—You have suggested a total protection of 8 annas on ply wood; supposing we ultimately decided that the amount of protection required is 8 annas on the ply wood contained in a tea chest and we took the 15 per cent. off the panels on the import side, assuming that 8 annas is the protection you require the export duty is fixed at 8 annas would that suit your purpose.

Mr. Tarlton.—We would be better off by 4 annas.

President.—The only point you are really concerned with is to dispose of 5 lakhs of boxes annually. It does not matter whether you can sell them for export or sell them internally.

Mr. Tarlton.—Yes.

Mr. Jenner.—Nothing will be of any real use but an 8 annas margin. I believe those importers will go on cutting their rates to any figure so long as they see that we are not firmly established. I am perfectly content in my mind that the cut in prices will go on.

President.—We are talking of the method of protection not of the measure of protection.

Dr. Matthai.—I think Mr. Jenner's point was this. Supposing you decided to levy a duty of 8 annas; then to the extent that you have announced that the measure of protection for the industry is 8 annas, to that extent people might start under-cutting. Is that your point Mr. Jenner? It often happens when there is dumping in an industry and you raise the duty, it at once brings the price down by the amount of the duty.

President.—You are anxious, I understand, that nothing should be done in any way to affect the tea industry in India?

Mr. Tarlton.—That is so.

President.—The tea industry is so large an industry that even though it might appear at first sight that an import duty of say 25 per cent. would affect the price very little, still the industry is so large that it is a matter on which we should take no risks if they can be avoided.

Mr. Tarlton.—They still have a big margin and again I say that I do feel that it would be a very good thing if we could come to some arrangement by which people in India manufacturing boxes could be encouraged.

Dr. Matthai.—What are the grounds on which a scheme like this might be liable to objection?

Mr. Tarlton.—I think it would be very difficult for them to raise any grounds of objection.

Dr. Matthai.—Will you think the scheme over? We have to examine you again on a number of supplementary matters and we shall be glad to your considered views.

Mr. Tarlton.—We certainly will.

The Assam Saw Mills and Timber Company, Limited.

B—ORAL.

Evidence of Mr. E. S. TARLTON and Mr. S. H. JENNER, recorded at Calcutta, on Saturday, the 20th August 1927.

Names of the jungles worked by the Company.

President.—I would like to ask you a few questions on general subjects before we start on your supplementary statements. Can you give us the name of the jungles you are working?

Mr. Jenner.—The Plains portion of the Sadiya Frontier Tract.

President.—Which is the forest which is served by your tramline?

Mr. Jenner.—(1) The area between the Silli River and the Tari Jan and so through the Poba reserve. (2) The area West of the Banker Jan.

President.—Would it be correct to describe the jungle which is served by your tramline as the Poba reserve?

Mr. Jenner.—No. It is far larger than that.

President.—Is the Poba reserve part of the Pasi Ghat area? Some description of your jungle will be necessary.

Mr. Tarlton.—They are best described as the Plains Portion of the Sadiya Frontier Tract.

President.—There is no forest description such as circle number so and so?

Mr. Tarlton.—Not as far as I know.

President.—Really your lease is a vague one. Would it be correct to describe the whole area as the Pasi Ghat area?

Mr. Tarlton.—No. What we call the Pasi Ghat area is the portion which we are working now.

President.—That is not the whole of your lease?

Mr. Jenner.—No, only a small part of it.

President.—The portion which is served by the tramline that is separate from Pasi Ghat altogether?

Mr. Jenner.—Yes, our main tramline extends 10 miles in a direct line to Pasi Ghat but our rail head is about 12 miles from it.

President.—Probably the best description would be the Sadiya frontier tract forests. At present the company is working the area in the vicinity of Pasi Ghat and the area which is served by their tramline near Poba reserve.

Mr. Tarlton.—Yes, and also our branch line to what we call the Banker Jan area.

President.—There is another small point. Could you tell me when the Buxa Timber Company started operations and when it closed down?

Mr. Tarlton.—It was floated in 1914 I think and closed down in 1920 or 1921.

President.—That also manufactured tea chests?

Mr. Tarlton.—Yes.

President.—What about the Surma Valley Company?

Mr. Tarlton.—It was floated in January 1917 and closed down in June 1923.

President.—That also manufactured tea chests and nothing else?

Mr. Tarlton.—Tea chests and plywood boards.

Supplementary Statements.

President.—Now let us go through the supplementary statements that you have sent in. The first is a statement of the quantity of rubber con-

tained in a rubber chest. You also state that rubber boxes are selling at Rs. 3-4-0. Where do you get that information from?

Mr. Tarlton.—From Messrs. Heilgers and Co., Rangoon.

President.—Any particular type of rubber chest?

Mr. Tarlton.—The ordinary 3 ply box 19×19×24.

President.—Could we put that telegram on record?

Mr. Tarlton.—Yes, (handed in).

Dr. Matthai.—You give the freight as 8 annas 6 pies. You told us last time that the freight from Surma Valley to Rangoon is 8 annas.

Mr. Jenner.—The freight from Murkong Selek to Rangoon is 8 annas. This figure includes fittings also which we should ship from Calcutta. Since we received that telegram I have had further information by letter, saying that Venesta boxes were selling at Rs. 3-4-0; that the gross weight was 200 to 224 lbs. Messrs. Heilgers & Co., also write "There is no Rubber Association of any kind here. There was a Rubber Association formed at the end of the War which flickered on until 1921 and then died from sheer in anition. Begtre & Co., were asked to try to revive it recently but declined to do so."

President.—As far as rubber boxes are concerned the position is that provided these prices are maintained you can compete?

Mr. Jenner.—Yes, we should certainly do so.

Dr. Matthai.—If the gross weight is 224 lbs. the weight of rubber in it would be 224—18, that is about 200 lbs.

Mr. Jenner.—The weight of the rubber would be about 210 lbs.

President.—On what sort of information is your price for birch wood based?

Mr. Tarlton.—On a cable from London.

Dr. Matthai.—That is f.o.b. London, is it?

Mr. Tarlton.—Yes.

President.—You have no information as to alder which we were told was also being used?

Mr. Tarlton.—No.

Dr. Matthai.—I was thinking if the price f.o.b. London was 1s. 4d. and if what you have told us about the wastage in birch namely 25 per cent. is correct, then the cost at 1s. 4d. would work out to probably 7 annas. What Mr. Jacob apparently gave us was the price in Finland; we cannot definitely say that it is so, but if it is 11d. per cft, with the same wastage of 25 per cent. it would work out to about 5 annas, that is almost the revised figures that you have given us to-day.

Mr. Tarlton.—Yes, we have given you the current market price.

Dr. Matthai.—The measurements that you give here of opium chests you say are inside measurements. The same dimensions were given to us by Messrs. Williamson Magor and Company and they told us they were outside measurements; and generally measurements being taken outside I am inclined to think that the standard dimensions taken would be outside measurements.

Mr. Jenner.—We have given you the specification and from that you will see that the measurements are inside.

Dr. Matthai.—I don't think it matters very much. I would like to be clear about the alterations you want to be made in the specification of battens.

Mr. Tarlton.—We do not mind what the actual size is; but we should prefer a more straight forward batten.

Dr. Matthai.—What difference does it make from the point of view of strength.

Mr. Tarlton.—As far as I know, it can make no difference at all.

President.—You have given the average working capital as Rs. 3,37,000. That would be approximately your working capital on an outturn of 3 lakhs of boxes, would it not?

Mr. Tarlton.—Yes.

President.—So that if we raised this in proportion to arrive at an output of 5 lakhs, that would give us the correct figure?

Mr. Tarlton.—Yes.

President.—You have your slack season when your stock would be accumulated?

Mr. Tarlton.—Yes, but I think that is a fair figure to take.

Dr. Matthai.—That is a little less than the figure you have taken in your revised costs, about Rs. 75,000 less. Then there is another reduction possible. You have taken the average value of stocks on 3 lakhs of boxes. If you are able to raise your output to 5 lakhs, then the cost of each box would be less?

Mr. Tarlton.—That is so.

Dr. Matthai.—And that is a reduction possible there?

Mr. Tarlton.—Yes.

Dr. Matthai.—What do you call the flat rate of freight?

Mr. Tarlton.—From a special rate for tea garden stores.

Dr. Matthai.—It is all cargo rate.

Mr. Tarlton.—The special concession rate does I believe apply to cargo and despatch service.

Dr. Matthai.—As far as that is concerned we can take the actual freights that you have given.

President.—In Supplementary Statement No. 19 showing the percentage of sales and varying estimated sale prices during last year, how do you estimate your sale prices? Am I right in thinking that you have taken your cost of manufacture, including overhead charges and profit, at Rs. 3 a box and estimated that you would get that price.

Mr. Jenner.—No, our figures are based on actual sale prices for the last 4 years. If we were getting Rs. 3-6-0 for 19×19×24 we know that the average price of a 19×19×22 box would be about annas 2 less.

President.—It is really a table showing the relative prices of the different sizes of boxes on the supposition that 19×19×24 sells throughout at Rs. 3-6-0.

Mr. Jenner.—Yes, that is so.

Dr. Matthai.—The real use of this table for us would be this—that if we get the market price for one size, we can deduce the probable prices of others from the table.

Mr. Jenner.—Yes.

President.—I see that you say that the later prices of importers should be kept confidential. Is there any reason why they should be confidential? They must know their price. I may say that they have produced their prices before us.

Mr. Jenner.—No, though we should prefer not to give you the source of our information.

President.—It is not necessary for our purpose. The only point I really want to ask is whether the following prices are for forward business. I take it that these prices will hold throughout the season, 1927-28.

Mr. Tarlton.—The prices would be for forward business and would probably hold for the season, 1927-28.

President.—What I want to get at is this. At present orders are being placed for the season, 1927-28.

Mr. Tarlton.—Yes, the new booking season is just commencing.

President.—I suppose in the course of the next 2 or 3 months orders would be placed.

Mr. Tarlton.—Yes.

President.—So that we may take this as representing next year's price subject to any possible shading of price later on.

Mr. Tarlton.—Yes.

President.—It is a question of shading. What I mean is that any big cut of say 3 or 4 annas as compared with the last year's season would probably take place now. Anything that comes afterwards would be mere shading.

Mr. Tarlton.—Yes.

Dr. Matthai.—When you give the quotation for Serdang, does that mean aluminium lining or lead lining?

Mr. Jenner.—A light lead lining.

Dr. Matthai.—They don't have aluminium lining.

Mr. Jenner.—I believe they are in a position to supply either a lead or an aluminium lining.

Dr. Matthai.—The reason why I am asking you is this. So far as we have been able to ascertain, the lowest price touched at present for the coming season is Rs. 3-0-8. That is for Serdang. We have received some prices—1927 prices—from the importers. I do not know whether they mean by that the past season or the coming season. Serdang is slightly higher in this.

Mr. Jenner.—They mean this season when speaking of 1927.

Dr. Matthai.—In that case the price that you have given is lower than the price they have given.

Mr. Jenner.—Yes.

Dr. Matthai.—They tell us that there is another brand which has come into the market which is apparently a cheaper brand than Serdang.

President.—It is called Spartan.

Dr. Matthai.—That with aluminium lining might be considerably cheaper.

Mr. Jenner.—Yes, it should be cheaper.

Dr. Matthai.—Could you give me an opinion on this point? We have here a variety of import prices about which we have received information. Now in taking the kind of lowest price against which you have to compete, would we be justified in sticking to the lowest price of a box with lead lining or have we to go down to a box with aluminium lining? Do you compete against that?

Mr. Jenner.—Yes.

Dr. Matthai.—There might be a considerable class of people who want lead linings and another class of people who want aluminium linings irrespective of prices.

Mr. Jenner.—Some firms prefer a lead lining but if a firm is really satisfied with either he would buy the cheaper.

Dr. Matthai.—There is free competition.

Mr. Jenner.—Absolutely, except when vested interests are considered.

President.—If boxes with aluminium linings are annas 2 cheaper than the boxes with lead linings, that means if you care to use aluminium, you would produce your boxes annas 2 cheaper. Therefore the lead mills out here will have to compete so far as their prices are concerned with aluminium lining.

Mr. Tarlton.—Except that a section of the tea trade thinks that tea packed in lead arrives in a better condition than if packed in aluminium.

President.—What I mean to say is that any reduction in price resulting from the use of aluminium lining should be reflected in your cost.

Mr. Jenner.—An aluminium lining might be 2 annas cheaper for the large box.

President.—The selling price of the box with aluminium lining is 2 annas cheaper. If a lead box sells at Rs. 3-3-0, the aluminium box sells at Rs. 3-1-0? I could not agree that all aluminium lined boxes are 2 annas cheaper than all lead lined boxes, as selling rates vary to such a large degree.

Mr. Jenner.—Here we have a case in point. The Serdang lead lined is, selling we here, at Rs. 3-0-8 against a Regent box which is the second quality of the Acme Co., with an aluminium lining at Rs. 3-1-0.

President.—I take it that whatever may be the position at any one particular moment, the price of both lead and aluminium as a whole tend to approximate. So that if we took lead lined boxes for purposes of comparison with your boxes we should not be very far wrong.

Mr. Tarlton.—There will be very little difference between the boxes sold with aluminium lining and those with lead linings.

President.—As regards the price of aluminium boxes, do you want this to be kept confidential? You said the price was about Rs. 3-0-8. The Tea Association told us that it was possible to buy a tea chest in Calcutta at about Rs. 3, so that somewhere about Rs. 3 would be a fair price to take.

Mr. Tarlton.—Yes.

President.—Subject to any possible adjustment we may make in other directions.

Mr. Jenner.—I think it would be fair.

Dr. Matthai.—It seems to me that the real problem, as far as you are concerned, is not so much that the well known brands of tea chests have come down in price, but that new and cheaper brands are coming into the market which are pulling down your prices. That seems to me to be the real problem.

Mr. Tarlton.—I don't think that is so; the price of all imported boxes have dropped; certainly a new box would have to sell at a cheap price to attract buyers. No new box came on to the market last season yet we had keener competition to face than ever before.

Dr. Matthai.—I was looking at your average realised price. Your average realised price for 19×19×24 during the last year was Rs. 3-4-6.

Mr. Tarlton.—Yes.

Dr. Matthai.—From the various quotations that we have received from importers for that season the lowest aluminium price was somewhere about Rs. 3-4-0 and you have very nearly come to that.

Mr. Jenner.—The reason why our price was as high as it was, in London was that at the commencement of the booking season we had to compete against Rs. 3-12-0 a box, later the price fell.

Dr. Matthai.—It seems to me to indicate that the kind of price that you can expect to realise on any particular size would be determined primarily by the lowest price in the Indian market.

Mr. Jenner.—That is so.

Dr. Matthai.—Rs. 3-4-0 seems to me to indicate that.

Mr. Jenner.—Yes.

President.—In your letter of the 17th August you have given us your revised costs for 5 lakhs of boxes. These costs are for the average box, are they not?

Mr. Jenner.—Yes.

President.—In your original reply to the questionnaire where we asked you for the costs of 19×19×24 box you gave your costs. The point I want to know is whether those costs although they purported to be the costs for 19×19×24 box were really the average costs. Your costs for 19×19×24 box for 1927 are practically the same as you give for the average box in this statement.

Mr. Tarlton.—The figures given in reply to the questionnaire are the costs under the present conditions. The cost of Rs. 2-13-4 is on proposed new company.

President.—That is not exactly my point. My point is this. Here your costs are the costs of an average box. As regards your answer to question 23, the question asks for the costs of one particular type of box, viz., 19×19×24. What I want to know is whether what you gave us subsequently was really an estimate of the cost of an average box or was an estimate for 19×19×24 box.

Mr. Jenner.—Are you referring to Rs. 2-13-4?

President.—No. Let us take the estimated cost on 3 lakhs of boxes in your latest statement (Supplementary Statement No. 16) and your reply to question 23 of the questionnaire. In the former case if we take away the overhead charges, Calcutta charges and commission and insurance which comes to 13 annas roughly, it leaves you Rs. 2-10-8 for a box on a production of 3 lakhs of boxes. That is for the average box as against Rs. 2-12-11 given in your reply to question 23.

Mr. Tarlton.—Yes.

President.—So that there is a difference of about 2 annas.

Mr. Tarlton.—Yes.

President.—But I gather that actually in order to get an average of say Rs. 3, you have to sell your box at Rs. 3-3-0, that is to say there is a difference roughly of about 3 annas per box in the cost of production. What I want to be quite clear about is this. In the one case it is the cost of 19×19×24 box and the other it is the average cost of producing all boxes. It is necessary to get this on record so that there may be no confusion later.

Mr. Tarlton.—One is for a 19×19×24 and the other is for the average box.

Mr. Jenner.—In answer to question 23, we have given Rs. 1-5-6 for fittings, whereas in the latest statement the figure for fittings is only Rs. 1-3-3. The former figure is the cost of a fitting and lining for a 19×19×24 box whence the latter figure is for an average price for all sizes.

President.—If we proceed on the cost of the average box and add approximately 3 annas to it, we get at the fair selling price for 19×19×24 box.

Mr. Tarlton.—Yes.

Amount of protection asked for.

President.—You seem to have adopted rather a different position now to that adopted in your original application. You say that the price should be so fixed as not only to give you a fair profit but also a margin of 5 annas for competition, that would mean instead of your original additional 4 annas you are asking for something about 8 annas.

Mr. Tarlton.—Yes.

President.—So, you have modified your position.

Mr. Tarlton.—Yes.

President.—The present price contains a duty of 7 annas. Your original application was that the duty should be raised to 11 annas. Now you are asking that it should be raised by eight annas, that is to 15 annas.

Mr. Tarlton.—We are only asking for 8 annas.

Dr. Matthai.—You give your fair selling price for 19×19×24 as Rs. 3-3-0 in your letter of 17th August, 1927. The lowest import price at present is about Rs. 3. That lowest import price of Rs. 3 contains a duty of nearly 7 annas. If you are asking for Rs. 3-8-0 as your fair selling price, the protection that you are asking for is the difference between Rs. 3-8-0 and Rs. 2-9-0 which of course is rather different from your original demand.

Mr. Tarlton.—On the assumption that the import duty is removed you arrive at your Rs. 2-9-0.

Dr. Matthai.—I am talking of the total measure of protection including the existing duty.

President.—The existing duty is about 7 annas and you wanted the 15 per cent. duty to be raised to 25 per cent.; that is to say, you wanted it to be raised to 11 annas. Now you have asked that it should be raised to a total of 15 annas.

Dr. Matthai.—Your original request was that there should be a bounty of 4 annas over and above the present duty of 15 per cent. What you are asking now is a bounty of 8 annas plus the duty of 15 per cent.

Mr. Tarlton.—The basis on which we worked is this. We have taken the selling price of 19×19×24 box as Rs. 3. We consider that we want Rs. 3-4-0 for that box and to be able to sell at Rs. 3-4-0, the imported box must sell at Rs. 3-8-0.

President.—That is to say you are asking for 15 annas instead of 11 annas which you originally asked for.

Mr. Tarlton.—I don't quite see how you arrived at 15 annas.

President.—Fifteen per cent. on the prices given in your original application came to 7 annas and you asked for a bounty of four annas—7 plus 4 = 11 annas. Now if you take the present import price of Rs. 3 which includes the 15 per cent. duty, the duty comes to about 6½ annas.

Mr. Tarlton.—Yes.

President.—If you add 8 annas to that, you are asking for 14½ annas.

Mr. Tarlton.—We have gone on the basis that the 15 per cent. duty would be maintained on the boxes coming into the country at Rs. 3. We cannot work on anything less than Rs. 3-4-0 and to be able to obtain Rs. 3-4-0 for our box, we ask that the price of the imported box should be raised to Rs. 3-8-0.

President.—It means a specific duty of somewhere between 14 and 15 annas.

Mr. Tarlton.—Yes.

President.—Whereas originally you asked for a specific duty of 11 annas.

Mr. Tarlton.—Looking at it from that point of view, we have done so.

Dr. Matthai.—Supposing in fixing the measure of protection we take absolutely the lowest price that we find in the Indian market for the cheapest box and, having got that, take the difference between that price and your fair selling price and fix the measure of protection in that way, don't you think that after that if there is any prejudice left against Indian chests, it is a matter that you can overcome by a more vigorous sales organisation?

Mr. Tarlton.—Yes, provided we have a margin to come down between the imported and the Indian box. If we don't give sufficient inducement to those people who are now using imported boxes, there will be no change.

Dr. Matthai.—If you take a box like Serdang or Spartan, there would be sufficient agreement I expect in the Indian market that your box, quality for quality, is better than that. Your box might not be considered superior to the Venesta box but it would certainly be considered as good as many of the imported boxes. If we give you a measure of protection based on the cheapest in the market—not the Venesta box but the cheapest in the market?

Mr. Tarlton.—Can you tell us where the Spartan boxes come from?

President.—Davenport's are the agents.

Mr. Jenner.—I think that they would be more readily accepted than boxes made in India for this reason. Whatever new box comes on to the market, as long as it is imported, every buyer knows that it is practically the same as Acme's because it is made of birch wood.

Dr. Matthai.—But it might not be selected with the same amount of care because we understand the difference between the superior tea chests and the inferior tea chests depends on the sort of ply wood used.

President.—There must be a difference between the various kinds; otherwise everybody will buy the cheapest box.

Mr. Jenner.—The only difference between the Venesta first quality box and the Venesta second quality box is that the former has got rather more carefully selected panels. It is of the same manufacture. The only difference between the first class and second class Acme boxes is that in the one case the panels are a little better selected and it has got a different type of lining.

President.—Your box will probably be superior to these?

Mr. Jenner.—Do you mean the second quality?

President.—Yes.

Mr. Jenner.—Undoubtedly.

Dr. Matthai.—The evidence is fairly clear that your box is as good as many classes of imported box. If we give you a margin of 8 annas between your fair selling price and the lowest price in the Indian market, then you have got really as much as you want and the rest you can get over by sufficient advertisement and propaganda work.

Mr. Jenner.—A difference of 8 annas would certainly enable us to sell more than we are doing now.

Dr. Matthai.—There is the problem that prices may not rise to the full extent of the duty. We might put on a duty of 8 annas a box; on account of severe competition among importing houses, prices may not rise to the full extent of 8 annas. There is that possibility?

Mr. Jenner.—If you take the average Ceylon price and the average Calcutta price to-day you will find the former higher than the latter.

Dr. Matthai.—The Ceylon market is rather a smaller market than the Indian market.

President.—Could you tell us where you got your Colombo prices from?

Mr. Tarlton.—From our agents.

President.—What size of boxes?

Mr. Tarlton.—19×19×24.

President.—What make of boxes are these?

Mr. Tarlton.—We asked for prices of Acme, Serdang, Venesta, 19×19×24. These are from Messrs. D. Forsythe and Company. They were as follows:—Serdang, Venesta, Acme, 19×19×24 current price Rs. 3 twenty cents less 6 per cent. ex-Stores; duty free reductions for quantities.

Dr. Matthai.—All these sell at the same price, do they?

Mr. Tarlton.—I do not suppose there is very much difference between the Venesta and Acme.

Dr. Matthai.—But there must be considerable difference between Venesta and Serdang?

Mr. Tarlton.—Possibly so, I do not know.

Dr. Matthai.—I was wondering whether the Ceylon prices that you give us here are prices which are actually comparable with the lowest prices in the Indian market.

Mr. Jenner.—We can get you information as regards the difference between Serdang and Venesta or if you like the highest and the lowest price.

Dr. Matthai.—If you could get us the lowest price that would be to the point. As far as the United Kingdom market is concerned Ceylon exports a little less than half of what India does. India is far and away the biggest market in the world for tea chests and therefore one would expect a far severer competition in the Indian market than in Ceylon and that might account for the difference.

President.—Would you mind putting your telegram on record?

Mr. Jenner.—Not in the least.

Overhead charges.

President.—In your examination before you stated that you could obtain working capital at 6 per cent. whereas in this statement you take an all round average of 8 per cent.

Mr. Tarlton.—That includes a dividend. That is the average of everything.

President.—That is to say you are taking 10 per cent. as your profit and 6 per cent. on your working capital and striking an average of 8 per cent.?

Mr. Tarlton.—Yes.

Dr. Matthai.—I find you have taken depreciation at 7½ per cent.?

Mr. Tarlton.—Yes, we have taken it at an average of 7½ per cent.

Dr. Matthai.—We generally for our purposes take the average of the various income-tax rates for machinery and buildings and so on at 6¼ per cent.

President.—Before we deal with the details, I would like to be clear in my mind as to what is the difference in Statement No. 18 between the estimate of the cost of producing 5 lakhs of boxes and the estimated cost of producing the same number on a forward position?

Mr. Tarlton.—You asked us to show you for what saving would be effected in the next four or five years.

President.—I take it that the estimated cost on 5 lakhs of boxes is really maintaining the present rates which you are paying but allowing for any reduction merely as a result of increased output. Is that correct?

Mr. Tarlton.—Yes, I think so.

President.—And the 3rd column is the reduction in cost resulting from (1) decreased charges on account of increased output, and (2) other economies which have already been indicated in your reply.

Mr. Jenner.—Yes, specially as regards glue.

Dr. Matthai.—Within what time do you expect to get these forward costs realized? Supposing for example the industry is granted protection next year and you worked up in the course of the year to an output of 5 lakhs, in what time do you expect to reach the new costs that you indicate in the 3rd column?

Mr. Tarlton.—We should be able to work up to 5 lakhs of boxes within one year.

President.—Dealing with timber first, as regards packing have you considered the possibility, instead of using boxes for packing your chests, of using your waste ply wood and putting on additional steel hoops?

Mr. Tarlton.—Yes, but rejections are small because if there is a flaw in a large panel it is cut down for use in a small chest.

President.—I was thinking of the waste ply in the process of peeling off the log.

Mr. Tarlton.—As a matter of fact we do use a certain amount for local packing.

President.—You can put two or three pieces of waste ply round your panels and secure them with hoops.

Mr. Tarlton.—Yes, we are doing that now, for local packing. But when consignments are to be transhipped at Dibrugarh or Dhubri we pack in cases to avoid damage *en route*.

President.—So you don't think there is any considerable reduction to be obtained in that direction?

Mr. Tarlton.—We are still trying to get the costs down but I don't think much more can be done. If we get more local and fewer Dooars orders then the average will go down.

President.—As you increase your output the tendency would be to go further and further afield for a market.

Mr. Tarlton.—Not necessarily there is still a big market available.

Dr. Matthai.—Supposing you raised your output to 5 lakhs the proportion of your sales among the different districts would be more or less in the proportion that you have given now?

Dr. Matthai.—We might then say that the proportion will still hold more or less good?

Mr. Tarlton.—Not necessarily, but it would probably be so.

Dr. Matthai.—We have got to assume that your sales hereafter would follow a particular proportion in regard to distribution in different districts.

President.—The question arises in dealing with your freight.

Mr. Tarlton.—Quite.

President.—Exactly what does this commission represent?

Mr. Tarlton.—The commission paid to the Manager is Rs. 10 and Rs. 6 to the two assistants per thousand boxes despatched, and a quarter of an anna per box to the salesman.

President.—We understood that you don't pay any commission at all. This is a new item which has appeared?

Mr. Tarlton.—That is staff commission.

President.—Really this might appear in the costs as extra charge on supervision?

Mr. Tarlton.—Yes.

President.—And insurance?

Mr. Tarlton.—That is ordinary insurance on plant. We have not put it into the works costs because it is paid in Calcutta.

Dr. Matthai.—There was a small point in your original statement on which I want to be clear. You speak of a duplicate plant. I presume that refers to the plant at the Surma Valley works?

Mr. Tarlton.—Yes.

Dr. Matthai.—Supposing this industry is granted assistance by the Legislature then will it not be better for you to re-open the Surma Valley works and work there because there is a local market?

Mr. Tarlton.—A big factory in one place will result in more economical working.

Dr. Matthai.—Supposing the industry was granted protection and there was the question of increasing the output even beyond these 5 lakhs of boxes, would the plant from Surma Valley be transferred to Murkong Selek?

Mr. Tarlton.—Part of it would come at once.

President.—Apart from the possibility of the industry eventually doing without protection, if there was still further protection beyond 5 lakhs of boxes, your overhead would come down again. Would it be possible to run two shifts?

Mr. Tarlton.—Yes. There would not be any difficulty about that.

President.—If you run two shifts would you be able to turn out double the quantity?

Mr. Tarlton.—Very nearly so.

President.—And in that event the reductions which are shown in column 2 of your timber costs statement would still further go down?

Mr. Tarlton.—Yes.

Disposal of used boxes.

President.—When your boxes go to England carrying tea what happens to them after the tea is used? Are they sold?

Mr. Tarlton.—I think I am right in saying that they are sold, for about a shilling.

President.—Have you an organization to sell these boxes?

Mr. Tarlton.—No.

Mr. Jenner.—I don't think it would be economical from our point of view.

President.—Your fittings could be used again and linings could be used again by the Venesta people.

Mr. Jenner.—The lead lining would certainly have to be rolled again, it is bound to be damaged by the time the tea has been sold.

President.—It struck me that if any of the Companies in England as part of their reclaiming business were to take over your chests you might be able to get a better price. We were told by the agents of the Venesta Company that if the Venesta chests were returned to the Venesta Company, a refund would be paid for them. We have not got the details but they have promised to give them to us. We were told by the representative it was somewhere about half a crown. If it is possible to obtain anything like that for your chests, the prices might rise.

Mr. Tarlton.—I suppose it would make them more popular.

President.—Have you considered any negotiations of that sort?

Mr. Tarlton.—No.

President.—I understand you are in fairly close touch with the Venesta, because you purchase their linings.

Mr. Tarlton.—We do purchase from them.

President.—And their fittings.

Mr. Tarlton.—Yes.

President.—So that a business arrangement of that sort is not beyond the bounds of possibility.

Mr. Tarlton.—I do not think the Venesta Company, would consider it.

President.—It might be to their advantage as well as to your advantage.

Mr. Tarlton.—Possibly.

President.—We were told by their representative the other day that they were really very much interested in your industry, because the output of their fittings and linings depends on the existence of the Indian industry. The destruction of the Indian industry would seriously affect their lead mills. In fact they told us that they were not in the least anxious that the Indian Companies should disappear.

Dr. Matthai.—It almost looked that after protection the Assam Saw Mills and the Venesta might form a combine! No use can be made of your chests after, I suppose, it has been used. I want to know whether your panels can again be used for making smaller chests.

Mr. Tarlton.—Do you mean in England?

Dr. Matthai.—Yes.

Mr. Tarlton.—Yes, they could be cut into smaller panels.

Dr. Matthai.—Have you ever seen an imported chest made of hollock?

Mr. Tarlton.—No.

President.—At the same time they would have a greater original value if they could be sold later secondhand. Why did you not separate your labour from stores?

Mr. Tarlton.—All charges in connection with each machine we debit to that particular machine.

President.—We will first deal with timber. On an increase in output only you estimate a reduction of approximately 4 pies that is to say from As. 7-8-2 on an output of 3 lakhs of boxes you arrive at As. 7-4-8 on an output of 5 lakhs. Exactly in what way do you expect the economy?

Mr. Tarlton.—On larger quantities our timber camps can be worked more economically.

President.—Do you mean supervision?

Mr. Tarlton.—Yes.

President.—Apart from the question of output, you estimate a further reduction from As. 7-4-8 to As. 5-9-1 owing to other economies which you give here in your statement of timber costs. As regards the cost of extraction and floating down the timber to the mill, in your forward position you show a reduction of 5 pies. Taking the first item 5 lakhs chests outturn, at present, it would be As. 3-5 and as regards the forward position, that is to say, owing to special economies apart from output you estimate it at As. 3. There is 5 pies reduction. In what way is that 5 pies economy effected? Is it due to some improvement in method?

Mr. Tarlton.—That is the result of doing away with the departmental work and working through contractors.

President.—Instead of working your forests departmentally it will be done through contractors.

Mr. Tarlton.—Yes.

President.—You estimate a saving of 5 pies on that account.

Mr. Tarlton.—Yes.

President.—Royalty automatically goes up to 1a. 6p.

Mr. Tarlton.—Yes.

President.—The additional charges, what are they?

Mr. Tarlton.—These are detailed under A and B of the Schedule we have handed in.

Dr. Matthai.—You have estimated As. 1-6 as the royalty on the forward position, but if your forward position covers a period of more than 4 years from March 1928, your royalty would be something more than that under the lease.

Mr. Tarlton.—It would go up to As. 2-3.

Dr. Matthai.—I was wondering whether it was necessary to make any kind of provision for that. For the third 5 years it would be As. 2-3. Your lease started in 1921.

Mr. Tarlton.—Yes.

Dr. Matthai.—And then in 1927 the new royalty ought to have begun, but it has been put off till 1928.

Mr. Tarlton.—Yes.

Dr. Matthai.—Under the lease, in 1931 or 1932 they can ask you to pay As. 2-3.

Mr. Tarlton.—Yes.

President.—The reduction in the other additional charges, is that also the result of contract work?

Mr. Jenner.—The contractor will fell the log and bring logs down to the factory at a flat rate.

President.—Your elephant upkeep and rest camp charges which are at present As. 1-2 a chest are reduced to 2 pies.

Mr. Jenner.—We still have a herd of elephants which shall we hire out to the contractor, but we shall still have our Veterinary Surgeon and hospital or rest camp.

Mr. Tarlton.—The elephants will be ours.

President.—The elephant rest camp is 2 pies.

Mr. Tarlton.—It is really an elephant hospital charge; elephants must rest one month in three to keep them in good condition.

President.—What does the 2 pies represent?

Mr. Tarlton.—Staff and medicine—the cost of elephants when they are not working.

President.—Would not your staff be reduced if you are going to do the work on a contract basis?

Mr. Tarlton.—We shall still have a Forest Manager, but the cost of the other staff it will go down, because the work will be taken over by the contractor.

President.—What are the charges under the head 'cane'.

Mr. Tarlton.—That is for tying logs together for floating purposes.

President.—So that really the whole of this reduction is a result of your giving up departmental work and letting out the extraction to contractors.

Mr. Tarlton.—Yes.

Dr. Matthai.—You say less 7 per cent. on reduced cuttings. Does that mean less wastage?

Mr. Tarlton.—Yes.

President.—The reason for that is you will save a considerable amount owing to reducing the size in the margin of your boards.

Mr. Tarlton.—Yes.

President.—You also save the wastage in glue.

Mr. Tarlton.—Yes.

President.—Does that represent the whole of the 7 per cent.?

Mr. Tarlton.—Yes.

President.—We were told with hollock the Assam Railways and Trading Company expected to get an outturn of one box per cubic ft. as against your 1-25 c.ft. Now this 7 per cent. will bring down your charges to what exactly. Will it be 1-12 c.ft.?

Mr. Tarlton.—Yes.

President.—We have been told that one of the reasons for wastage is that if supervision is not good, the log may not be fixed between the chucks in the correct position. Is that a matter which you have investigated?

Mr. Tarlton.—We constantly try to make the very best use of our timber, but the 7 per cent. is for reducing the size of the panels that are cut in the clipper.

President.—What I was suggesting was that there might be a possibility of a further reduction of wastage in view of the figures given by the Assam Railways and Trading Company.

Mr. Tarlton.—It is a thing that is always engaging our attention. From what I have seen and heard of the Assam Railways and Trading Company I can say that they have a slightly better timber from the point of view of girth. The centre core is more or less central, whereas in the case of our timber, the core is not always in the centre, and that causes wastage. It is a matter which the Forest Department is investigating. The timber question is receiving very, very careful consideration.

President.—Is there any system of selection of trees on the spot?

Mr. Tarlton.—We have to cut trees at a certain girth.

President.—Is it possible for your forest assistant to select certain trees for your veneer mill and send the others to the Meckla mill? For instance, if a tree is very knotty or not circular, you will get a large percentage of wastage but if your forest assistant selects the trees on the spot and marks them with a distinctive mark for the veneer mill, don't you think that you would get a better return?

Mr. Jenner.—We don't extract irregular logs. If a particular log is not suitable for veneering and it is not dragged the forest officer will at a later date examine it and if he is of the same opinion it is left in the jungle.

President.—You have a selection of timber by your forest assistant more or less in the forest.

Mr. Tarlton.—Yes, that is done.

President.—It is a point which should not be overlooked.

Mr. Tarlton.—No, it certainly never is.

Dr. Matthai.—On the whole I suppose hollow timbers are more regular in shape than hollock.

Mr. Tarlton.—I think that they are.

President.—As regards glue, your reduction is due to the improvement in practice resulting from reducing the margin allowed on the boards.

Mr. Tarlton.—Yes.

President.—And any other reasons?

Mr. Tarlton.—Our intention now is to put in our own grinding mill and make the glue on the spot.

President.—Power and fuel—that shows a reduction of 3 pies. What is the reason for that? Is that also due to the improvement in practice?

Mr. Tarlton.—The present generated power is sufficient to give the increased output, hence the reduction.

President.—That is a reduction on account of output and not on account of practice.

Mr. Tarlton.—Quite so.

President.—Labour and stores—that is mainly on account of the output.

Mr. Tarlton.—Yes.

President.—You will be able to turn out more with the same staff or very little increase in labour.

Mr. Tarlton.—Yes.

President.—There is also a small reduction of 5 pie which appears to be on account of improved practice. Is that what you estimate on account of your workmen being more skilled?

Mr. Tarlton.—Yes.

President.—This small decrease on account of improved practice, does it represent in part reduced charges of stores.

Mr. Tarlton.—It is on labour. I don't think that there is any change in stores. As a matter of fact, the stores item is slightly up and labour is down.

President.—As regards supervision, do you contemplate increasing your supervision if you increase your output from 3 lakhs to 5 lakhs of boxes?

Mr. Tarlton.—We are now adding a little to the supervision which will be our standard figure for the new output.

President.—What is the amount of the addition?

Mr. Tarlton.—One more European assistant.

President.—On how much?

Mr. Tarlton.—On Rs. 600 a month.

President.—If you take your present rate of 3 lakhs of boxes and multiply the 3 lakhs by the present rate and divide it by the estimated output of 5 lakhs you will get your supervision charge as 1 anna 4 pies as against your 1 anna 10 pies, the difference being 6 pies.

Mr. Jenner.—That is due to the extra cost of one man on leave.

President.—Is he the extra assistant, the man who has gone on leave?

Mr. Jenner.—We have not got that man yet. It is merely a forward position.

President.—Your present charge for 3 lakhs of boxes is lower than it would be because you have got one man on leave.

Mr. Jenner.—Yes.

President.—Then, in future you not only require the full staff but an additional assistant on Rs. 600 a month.

Mr. Tarlton.—Yes.

President.—Reduction in repairs and renewals is a result of increased output.

Mr. Tarlton.—Yes.

President.—As regards the heading "miscellaneous", what are the chief items that come under this heading?

Mr. Tarlton.—Here are the details.

President.—These will go down ordinarily because of the increase in output.

Mr. Jenner.—Yes.

President.—Fittings and linings—would you be able to get a better rate when you turn out 5 lakhs of boxes than when you turn out 3 lakhs of boxes?

Mr. Jenner.—We might get a slightly better rate.

President.—Should we make an allowance for that?

Mr. Jenner.—I should hardly like to do so.

President.—How much should we allow?

Mr. Jenner.—It is very difficult to tell. With the present internal competition we have great hopes that there will be a better rate in future. As a matter of fact for our forward position we have already got a better rate.

President.—We must make some sort of conservative estimate as to the reductions you may get when you make 5 lakhs of boxes as compared with 3 lakhs of boxes?

Mr. Jenner.—It depends on the price of lead too.

President.—That would affect your competitors also. I am not pressing you to make a very large reduction. I do not myself think that on the average over a series of years the increase in the output would result in a big reduction. But some reduction will obviously be necessary. Could you make some adjustment which may be in the neighbourhood of 3 pies?

Mr. Tarlton.—I would not like to say that definitely but I think that it is probable.

President.—Some adjustment will be necessary and we will leave it at that.

Mr. Tarlton.—Yes.

Dr. Matthai.—2½ per cent. will mean 6 pies. Let us take it that the reduction won't exceed 2½ per cent.

Mr. Tarlton.—Very well.

President.—As regards Calcutta charges, those are your head office charges, aren't they? I only want to know what figure you have taken.

Mr. Tarlton.—We have given you the details.

President.—What does the figure of Rs. 19,900 represent?

Mr. Tarlton.—The management of the Company actually costs Messrs. Bird and Company that amount.

President.—You are entitled to Rs. 9,000 for head offices expenses plus 10 per cent. on profits for managing agents charges, is that correct?

Mr. Tarlton.—Yes, 10 per cent. on profits before depreciation is deducted.

Dr. Matthai.—You have given here Rs. 9,000 which is the managing agency allowance and then you have given a detailed statement of the various heads under which expenditure is likely to be incurred in the head office.

Mr. Tarlton.—What is your point?

President.—What I want to know is what your figure for "Calcutta charges" represents?

Mr. Tarlton.—Actual costs are Rs. 19,900. The other day you asked for the amount we were entitled to. I replied Rs. 9,000 a year plus 10 per cent. on profits. The 2nd point was what it actually cost Messrs. Bird and Company. Rs. 19,900 is actually what it costs therefore we lose if the company is not making a profit.

President.—Actually your heading "Calcutta charges" does not include your commission of 10 per cent. to which you are entitled?

Mr. Tarlton.—No.

President.—Do you think it would be fair in estimating the expenses of a veneer mill to take into account the actual Calcutta charges or should we include anything above that? Your present arrangement is that you charge Rs. 9,000 plus 10 per cent. on profits. Actually what you have taken is your actual Calcutta expenses of Rs. 19,900. Is it fair to take that your Head office charges or should we estimate the Calcutta charges at Rs. 9,000 that you charge now plus 10 per cent. on the gross profits?

Mr. Tarlton.—I think it would be better for your purpose to take Rs. 9,000 which we are entitled to charge the company though actually these are the actual charges that we have incurred if they are of any use to you.

Dr. Matthai.—That is to say, in calculating your managing agency charges we should proceed on the basis of the statement that you made in your original application—Rs. 9,000 plus 10 per cent. on profits—and then use these figures as a check?

Mr. Tarlton.—Yes.

President.—On your present arrangement of Rs. 9,000 plus 10 per cent. it works out to somewhere about Rs. 24,000?

Mr. Tarlton.—Yes.

Dr. Matthai.—Supposing the industry receives assistance for some definite period—should we be justified in accepting as the average cost for that period what you give here as the forward cost?

Mr. Tarlton.—Yes, provided during that period no legislation is brought forward to affect the costs of running the factory, e.g., legislation for factory purposes whereby wages would be increased.

Dr. Matthai.—The assumption is that as soon as you are able to reach an output of 5 lakhs of boxes these economies that come from improvement in practice would be realized almost immediately after?

Mr. Tarlton.—Yes.

Dr. Matthai.—In fact some of them would be realized at once?

Mr. Tarlton.—Yes.

Dr. Matthai.—There is just a general point in connection with your last paragraph. You make a proposal to the effect that the export duty might be re-imposed and that the duty should be refunded to those who take their boxes from the Indian companies. Your idea apparently is that the export duty should be levied in the first instance on all tea and then a refund made to people who are using your chests?

Mr. Tarlton.—Our idea is that encouragement in some shape or form should be given to those people who desire to use Indian chests.

Dr. Matthai.—That general idea we discussed last time. Have you any particular idea in your mind in suggesting that it should take the form of a refund?

Mr. Tarlton.—No.

Dr. Matthai.—You are suggesting that if necessary a corresponding remission may be made in respect of income-tax. I was wondering whether administratively it might not prove a very difficult adjustment to make. You will remember one of the various alternative proposals we considered was that we might reduce the tea cess. Have you any particular reason in suggesting this alternative?

Mr. Tarlton.—None at all.

The Assam Railways and Trading Company, Limited, Margherita.

A.—WRITTEN.

(1) *Representation, dated 13th January 1927 to the Government of India.*

We desire to associate ourselves with Messrs. Bird and Company in their claim for a measure of protection to be extended to the ply wood industry of India. We agree with the general argument advanced by Messrs. Bird and Company who have been good enough to put in possession of their views and do not think it necessary to recapitulate the whole ground but there are certain facts and figures relative to our Veneer Mills which we desire to place before you.

2. When we conceived the idea of erecting the mills we arranged with the Assam Government for the lease of an extensive tract of mixed forest. The lease, which accordingly binds us to the extraction of a minimum quantity of 200,000 c.ft. of timber per annum, was signed in 1921 and arrangements were meantime made for the construction of the mills. The capital cost of the mills machinery up to the 30th March 1926, was Rs. 10,41,678. Since that date a considerable quantity of additional machinery has been sent out including an 83" lathe and clipper, a second hydraulic press, a Witney scraping machine, several double cross cut and other saw benches, a hemming machine, etc., at a cost of approximately £7,000 c.i.f. Calcutta. The mills are entirely driven by electricity, the engine being driven by steam for which fuel is abundant and at hand in the form of coal and wood. The boiler engine and dynamo are all now being duplicated while a separate lighting set is being installed so as to permit of certain processes being continued at night when the main drive is not available.

3. The erection of the mills and the installation of the original machinery were completed in the year 1923. The rest of that year was occupied in running in the machinery, in experimenting with glues, etc. Production for practical purposes started in 1924. The production of that and of the following years is shown below:—

	1924.	1925.	1926.
Consumption of timber in cubic feet	9,535	22,788	30,345
Production of ply boards in square feet	342,000	620,874	753,282
Equivalent in terms of full sized tea chests (19" x 19" x 24").	19,000	34,493	41,849

From this it will be seen that production is steadily increasing and with the addition of the second press alluded to above, it is considered that the equivalent of 100,000 chests per annum taking 66,000 c.ft. in the log, can be readily achieved.

4. It will be noticed that the existing production has been stated in terms of ply boards as well as of chests. In point of fact a considerable proportion of our production has been marketed in the form of ply boards for ceilings or panels for bungalows and railway coaches, and by no means the whole has been sold in the form of tea chests. The reason for this lies in the preference given by a section of the controlling authorities of the tea industry to imported ply boards, the preference being in our view due in certain instances to vested interests in European manufactories of ply wood. Of the thousands of chests of tea that have been sent from Assam packed in our cases no complaints whatever have reached us while we hold certificates from brokers in London showing complete satisfaction with our chests. We are in fact pre-

pared to challenge comparison with any other chest in the market. It is of course immaterial to us as manufacturers whether we dispose of our products in the form of ceiling boards or of tea chests so long as we can find a market for the whole outturn, but the market for our product in the one form is recurrent and in the other form occasional, and it is for this reason that we desire to obtain a footing in the tea chest business and to provide Assam made chests for Assam grown teas. The value of the industry of the province cannot be measured in terms of royalty alone. The royalty on 66,000 c.ft. amounts at present to little more than Rs. 2,000 but this is liable under the terms of our lease to be trebled in three years' time. In these mills alone between 100 and 120 persons, mostly Assamese, find employment and in most cases are being taught a skilled trade. In the interests of the industrial development of India, which is so near the heart of the educated classes, every effort should be made to assist and develop industries of this nature. It has been pointed out by Messrs. Bird and Company that the bulk of the fittings, etc., used in the construction of the chests are or can be made in India. In this connection we would point out that our present consumption of caseine which is the basis of our glues, is approximately 25 tons per annum and with an output of 100,000 chests would amount to 62 tons per annum. As much of this casein as is possible is procured from dairies in the Bombay Presidency and is ground and prepared for use in our Mills so that to this extent the latter are again assisting another indigenous industry. While dealing with these fittings it is of interest to note that we have designed in our mills a particular form of corner pieces (cut from terne plates) which has been patented.

6. The enterprise of this Company has given a new value to some of the forests of the country. The most common forest tree in the areas in which we operate is the Hollong (*Dipterocarpus pilosus*), but it is at the same time almost the least valuable of the forest timbers so much so that it is not even included in the list of reserved trees. In its natural state the timber is brittle and it is quickly attacked by insects. This Company has installed Veneer Mills and a sleeper treating plant; in the one it manufactures its tea chests from Hollong and in the other it impregnates Hollong sleepers under pressure with earth oil. The former experiment has resulted in a perfectly satisfactory and very strong box which is not more quickly attacked by insects than any other box, and the latter has resulted in a sleeper which it is hoped will have the life of a first class sleeper. We are manufacturing and are confident that we can continue to manufacture our chests at a figure not greater than that quoted by Messrs. Bird and Company but the profit that can be earned at the present prices which are ruled by the heavy cuts made in the price of the imported box by European companies does not give a reasonable return on the capital invested in the industry. It has recently been brought to light that in Southern India tea firms are obtaining a refund of seven-eighths of the import duty on imported tea boxes when they are re-exported and it may be anticipated that the same refund will shortly be claimed in Northern India. It is obvious that this will largely counter-balance the slight advantage already enjoyed by the Indian manufacturers of ply wood from the import duty on foreign ply wood. The rebate is claimed under section 42 of the Sea Customs Act, 1878 (Act XIII of 1878). We recently addressed the Collector of Customs, Calcutta, in this connection and asked whether with reference to sections 42 and 43 a claim for refund of seven-eighths of the duty on the imported linings (aluminium or lead), grease proof paper, cornerpieces and nails used in each box manufactured in the country can be met. We pointed out that it was of course impossible to see and identify the linings or grease proof paper but suggested that as their presence was a known fact, a certificate could be given by each shipper of tea. The Collector replied that a drawback would not be admissible as it would be impossible to examine the goods for identification. Even were the law modified so as to admit of this drawback, no advantage would accrue to the Indian manufacturers as the drawback would be equally obtainable on the fittings contained in the European made box when exported. We would however suggest that in addition to the measure of protection for which we pray

namely that the export duty on tea of Rs. 1-8-0 per 100 lb. on all tea packed in chests manufactured in India from Indian timber the law should be so modified as to disallow the drawback on re-export of the Customs duty paid on imported ply wood unless the same is re-exported in the same form and condition as that in which it arrived.

(2) Letter dated the 14th June 1927 to the Tariff Board.

I enclose herewith a further note regarding our application for relief in connexion with the manufacture of plywood, which I would ask to be read in connexion with and as supplementary to, the memorandum already in your hands.

Supplementary note on claim for protection of the Indian plywood industry.

1. In paragraph 3 of my letter of 13th January 1927, I have taken a figure of 66,000 cubic feet in the log as necessary for the production of 100,000 chests or 66 cubic foot in the log to one full sized chest. The figures for 1924, 1925 and 1926 given in that paragraph give ratios of .52, .60, .72. These are vitiated by the inclusion of ceiling boards which involve no battens in the square foot outturn of plywood. A more recent calculation I made in another connexion gave a figure of 8. On the whole I consider a safe figure to take is 1 cubic foot to 1 full sized chest (19×19×24 inches). The actual contents of the chest are—

	cubic foot.
Plywood	10
Battens	10
	—
TOTAL	38 cubic foot.
	—

2. In paragraph 6 of the same letter I stated that we were confident that we could work as cheaply as Messrs. Bird and Company. We have made a further careful calculation and find that on our present production which is limited to 40,000 by the orders we have succeeded in obtaining though we are in a position now to turn out a lakh of chests and could double that figure, our costs are Rs. 3-9-3 per full sized chest. The details of this are:—

	Rs. A. P.
Supervision	0 5 0
General Administration	0 8 0
Labour	0 5 0
Stores and packing	0 1 3
	—
	Rs. A. P.
Coal	0 3 9
Glue	0 5 9
Timber	0 6 0
Terne plates	0 5 0
Linings	0 14 6
Nails	0 1 0
Grease proof paper	0 0 6
Depreciation of machinery	0 1 6
	—
TOTAL	3 9 3

The administration and supervision figures are unduly high but would automatically drop with a bigger outturn.

3. There is a capital invested in the Veneer Mills of approximately Rs. 12,00,000. A return of 5 per cent. (which is not enough to give a fair return as interest and also to convert the mills into a profitable venture) requires a sum of Rs. 60,000, so that on an output of 40,000 boxes only we require a profit of Rs. 1-8-0. To convert the undertaking into a profitable venture we require a profit of at least Rs. 2. On an outturn of a lakh we should require a profit of only Re. 1-1-4 per box.

At present there is no profit and apart from a profitable venture the capital is not even earning any interest. Up to the present year we had a profit as we were selling boxes at Rs. 4-8-0 f.o.r. Veneer Mills, which compared favourably with the price at which foreign boxes of equal or inferior quality could be landed in the neighbourhood. It is exceedingly difficult to quote a firm price for the imported makes of Venesta, Imperial (Acme Co.), Luralda or Hercules boxes as there are different rates for different qualities and finishes, different gardens appear to obtain the same article at different prices, prices vary from time to time, and our competitors are sometimes very reticent in the matter. Further details can be given but broadly speaking it is correct to say that foreign competing boxes are now being sold at mound about Rs. 3-6-6 f.o.r. Calcutta. The result of this is that we have been compelled this year to drop our price from Rs. 4-8-0 to Rs. 3-10-0 f.o.r. the D. S. R. or A. B. R. This means that after payment of freight we recover in some cases only Rs. 3-4-0 to Rs. 3-6-0 per chest.

4. As far as can be ascertained there has been no decrease in the price of linings and fittings to account for this drop of 14 annas in the general market price nor does there appear to have been any corresponding drop in the price of imported ply boards other than tea chests or in that of imported articles made from plywood. We are forced therefore to the conclusion that the cut in the price of the imported box is designed to derive the Indian industry off the market and we do not believe that once the plywood industry of India is dead the cost of the imported plywood box would remain at the present level. We are frequently told by managers of gardens that they consider our boxes equal to anything imported and would be glad to use them but that they are bound to use the box supplied by their Calcutta Agents, and have no voice in the selection themselves. The Agents for the Acme Tea Chest Company (Imperial boxes) are Messrs. Gladstone Wyllie and Company who so far as we know are not agents for any tea companies. The Agents for the Luralda boxes are Messrs. McLeod and Company who are agents or managing agents for 13 tea companies. The Agents for the Venesta Limited are Messrs. Williamson Magor and Company who are agents, managing agents or secretaries for 49 tea companies. The Hercules box is manufactured for Messrs. The Planters Stores and Agency Company, Limited, who are agents or managing agents for 52 tea companies. It should moreover be borne in mind that the greatest part of the plywood imported to India is manufactured in the Finnish Republic whose exports of plywood comprise 43 per cent. of the world's exports. A further 36 per cent. is exported from Russia and the adjacent Baltic States which were carved out of the Russian Empire after the war. It is by no means impossible that circumstances will arise which may deprive the tea industry of these supplies and it is hardly prudent for them to be dependent solely on these sources.

5. The average annual export of tea from India is in the neighbourhood of 361 million pounds of tea, which at 120 lbs. per chest requires 3 million boxes. The corresponding figures for North India alone are 316 million pounds and 2-6 million boxes. We agree with Messrs. Bird and Company that there is no reason why India should not be able to manufacture 15 million boxes at reasonable prices. The Madras Government is known to be contemplating the erection of Veneer mills in the Forest Department, which could easily produce an excess over the needs of the tea industry of South India and it is very possibly that the figure of 15 millions could be exceeded.

6. Imported plywood pays a duty of 15 per cent. *ad valorem* but the trade has recently become alive to the fact that by the Sea Customs Act 4th of

this duty is refundable on re-export within one year, and steps have been taken to ensure that the refund should be applied for. The slight advantage which the Indian box enjoyed over the imported is thus nullified and a further cut in prices will be necessitated to maintain the limited market which the former had secured.

We do not believe that this refund was intended by the legislature which was contemplating the case of articles originally imported for use in India and found not to be wanted, and not the case of articles which when imported undergo a further process of manufacture and are actually put into use before re-export. Nor can it have been contemplated as admissible when Government for revenue purposes increased the import duty from 2½ to 15 per cent. We therefore consider that if this import duty is retained—as we should like it retained—legislation should be passed to prevent the drawback on the export of tea packed in imported boxes. In the case of linings, etc., both the imported box and the Indian made box pay an import duty of from 10 to 15 per cent. on assumed prices so far as they use imported material, but no drawback is allowed as these fittings cannot be identified in the exported chest packed with tea. These duties cost about Rs. 0-2-6 per chest. The two classes of boxes are here on a par and no alteration in the Customs schedule would give an advantage to the Indian made box. The Indian made box, however, pays duties on the ingredients of its glue which are not paid by the imported box. These duties of 15 per cent. *ad valorem* on an assumed price add about 10 pies to the cost of a full sized box and we suggest that the duty on caseine and alkalis used in the manufacture of glue might be taken off.

7. We do not suggest that the price of the imported box should be made dearer to those that still prefer its use but we ask that a bounty should be given for a term of 10 years in the first instance to encourage the manufacture of plywood in India. The rate of bounty we propose is 6 pies per square foot of plywood sold from Indian mills which is roughly equivalent to 9 annas on a full sized tea chest (29" x 19" x 24) containing 17-68 square feet.

If, however, the request made above for legislation to remove the drawback on export of the existing duty on imported plywood is not sanctioned, or if the import duty is removed, then we would ask for a bounty of 9 pies per square foot which is roughly equivalent to 13½ annas per full sized chest.

(3) Letter dated the 29th July 1927.

In response to your request for cost sheets for our tea chests I have to state that we have not so far compiled monthly cost sheets. Although the Veneer Mills Manager would be aware of his direct costs from month to month, there is a certain amount of expenditure which does not recur every month and therefore the total monthly costs would fluctuate and be of little value but we have prepared a complete cost sheet for the production of the year 1926-27, of which I send four copies and I trust they will meet with your requirements.

In explanation of the cost sheet I also add the following information:—

(1) During the year the following were produced:—

Tea chests full size	29,606
Tea chests half size	2,723
Ply boards	1,60,000 sq. ft.
Tea seed boxes	3,436

This production expressed in terms of full sized chests now reads:—

(a) full size tea chests	29,606
(b) 2,723 half size tea chests where one half size equals $\frac{2}{3}$ of a full size in ply boards and fittings	1,816
(c) 1,60,000 square feet ply boards where 17·6 square feet equals amount required for one full size chest	9,090
(d) 3,436 tea seed boxes where one tea seed box equals $\frac{1}{4}$ of a full size chest in ply boards	1,718
	<u>42,230</u>

Reaching this basis each sub-head of expenditure in the attached schedule is divided by this number in order to obtain the cost per chest, with the exception of sub-head III 3, 4, and 5 which represents fittings, etc., used only in (a) and (b) of above, i.e., full and half sized chests. This expenditure is divided by 29,606+1,816 or 31,422. This gives a cost for 1926-27 of Rs. 3-11-79 per full size chest.

We have not so far charged depreciation on machinery and buildings in our accounts but a fair cost must include a certain amount for this.

The capital value of the mills and machinery is some 10½ lakhs so that even a very small percentage on this would give a very high charge per box produced. But as the buildings and machinery are new I would suggest charging 2 annas per chest for depreciation in this year and later when output is greater and machinery older, a higher rate of depreciation can be more evenly distributed. Thus our all-in cost for 1926-27 would be Rs. 3-13-0 per full size chest.

I shall be pleased to give you any further information you may require.

ASSAM RAILWAYS AND TRADING COMPANY, LIMITED.

VENEER MILLS—MARGHERITA.

Cost sheet for 1926-27 on an output equivalent to 42,230 full size chests.

Particulars.	Amount.	Total.	Cost per chest in annas.
	Rs. A. P.		
To I.—General Superintendence—			
(1) Supervision	11,978 0 0		
(2) Office Establishment	860 0 0		
(3) Allowance including travelling	1,175 0 0		
(4) Sundries	944 0 0	14,957 0 0	5·67
„ II.—Working expenses—			
(1) Wages	12,865 0 0		
(2) Repairs of machinery	3,561 0 0		
(3) Sundries	656 0 0	17,082 0 0	6·47

Cost sheet for 1926-27 on an output equivalent to 42,230 full size chests—
contd.

Particulars.	Amount.	Total.	Cost per chest in annas.
	Rs. A. P.		
To III.—Stores—			
(1) Coal	7,902 0 0		3·00
(2) Glue	17,165 0 0		6·50
(3) Tea chest fittings	27,100 0 0		13·80
(4) Sundry stores and materials	4,624 0 0		2·35
(5) Custom duty, etc.	7,400 0 0		3·77
„ IV.—Timber—	14,608 0 0	64,191 0 0	5·53
„ V.—Transport Charges—		14,608 0 0	
(1) Railway freight	8,388 0 0	8,388 0 0	3·18
„ VI.—Administration Charges—			
(1) Home	6,710 0 0		
(2) India—			
(a) Controlling	1,863 0 0		
(b) Audit, Accounts, and Pay masters	3,787 0 0		
(c) Medical	1,902 0 0		
(d) Hospital	7,421 0 0		
(e) Miscellaneous	916 0 0	22,549 0 0	8·54
„ VIII.—Repairs to Cooly Lines—	1,375 0 0	1,375 0 0	·52
„ IX.—New Minor Works	1,220 0 0	1,220 0 0	·46
Total		1,44,370 0 0	59·79

(4) Replies to questionnaire dated the 5th August 1927.

In reply to your letter No. 633, dated 27th July, I enclose 3 copies of our reply to your questionnaire. The remaining 3 copies will be despatched under separate cover.

2. Four copies of the cost sheets were sent you with my letter of 29th July. Two more copies are forwarded as requested.

ASSAM RAILWAYS AND TRADING COMPANY, LIMITED. Incorporated in England.

Answers to Questionnaire of the Tariff Board.

1. The erection of the Veneer Mills was finished in 1923. After that some time was occupied in running in the machines, experimenting with glues, etc. Production began seriously in 1924 and the revenue account was opened in August of that year.

2. Ply wood is manufactured for consumption in any form in which a market offers. The main uses to which our products have been put are:—

- (a) tea chests,
- (b) ceiling boards and panels.

As regards (a) we supply our own garden of Bogapani and the gardens belonging to the Makum (Assam) Tea Company, Limited, and the Namdang Tea Company, Limited, which we originally floated and with which we are closely associated, with tea chests for the whole of their manufacture. We have found it difficult to obtain outside orders but have executed small trial orders for Messrs. Octavius Steel & Co., Messrs. Macneill & Co., Messrs. Duncan Brothers, the Jokai Tea Company, etc.

As regards ceiling boards and building panels we have not met with the same competition and have supplied a considerable number to the Assam Oil Company, Limited, and for our own departmental buildings. We have also supplied boards for a number of tea garden bungalows belonging to many tea companies. These orders however do not repeat as replacements are not required.

We have also sold a number of tea seed boxes (19×12×10), panels for railway coach work and a few for furniture making.

3. Please see above.

4. (a) The full capacity of our factory which is equipped with two presses and sufficient cutting lathes to keep these fully occupied is as follows:— Each press is 8'×4'=24 square feet. Each press has 12 divisions, each division being capable of pressing 8 boards, i.e., one press when fully loaded will contain 24 square feet×96 or 2,304 square feet. One press is capable of three outturns per day so that both presses will give an outturn of 6×2,304 square feet=13,824 square feet or approximately 13,000 square feet of good boards after allowing for trimmings of edges, etc. Basing these figures on a 25 working-day month or 300 working day in a year the outturn of the factory in 3-ply boards 3/16th" will be 300×13,000 or a total of 39,00,000 square feet.

(b) Converting the outturn of 3-ply boards into tea chests, 39,00,000 square feet should be divided by 20 square feet which latter figure is the practical quantity required for each full size chest after allowing for wastage. The outturn then expressed in terms of full size tea chests would be 1,95,000.

(c) Expressing the total quantity of 39,00,000 square feet of 3-ply boards in terms of 5-ply boards the quantity of the latter would be less by 2/5th or 23,40,000 square feet.

Commenting on the above statements we may remark that our total outturn is primarily in 3-ply boards which are then converted into tea chests as required. 5-ply Boards are very seldom manufactured, and then only to meet special orders. It must be carefully noted, however, that this is the maximum outturn for our factory and that it does not allow for enforced stoppages such as strikes, break downs, etc.

5. The output of 1924-25 may be neglected as we were still in a somewhat inchoate state and did not come on to a true commercial basis of manufacture in that year.

	Square feet.
1925-26—	
(a) 3-ply boards for panels 3/16th"	1,04,925
(b) 29,689 tea chests of sizes and tea seed boxes	5,22,526
(c) 1/4"-ply boards	630
(d) 5-ply boards	733
TOTAL	6,28,814

1926-27—

(a) 3-ply boards for panels 3/16th"	1,60,000
(b) 35,765 tea chests of sizes, and tea seed boxes	5,82,345
(c) 1/4"-ply boards	1,607
(d) 5-ply boards	4,996
TOTAL	7,48,948

1927-28—1st quarter—

(a) 3-ply boards for panels 3/16th"	2,924
(b) 12,488 tea chests full size	2,18,389
(c) 1/4"-ply boards	1,245
TOTAL	2,22,558

or for the year—say 8,90,232

In the above calculation the superficial area of a finished full sized box has been taken at 17·6 feet. The actual manufacture is greater as about 20 square feet are manufactured per box and then trimmed down.

6. The standard sizes of tea boxes manufactured by us are:—

Full size, 19"×19"×24" containing 17·68 square feet.

Half size, 18"×16"×16" containing 11·5 square feet.

There is however a curious lack of standardisation in the size of boxes employed by the trade and we have also manufactured the following sizes to the requirements of our customers:—

19"×19"×22".
21"×21"×24".
20"×20"×24".
18"×18"×22".
18"×18"×20".
18"×18"×16".

The actual consumption of ply wood is somewhat more than the figures obtained as above by multiplication of the sides of the finished chest. For example the full sized chest 19"×19"×24" takes about 20 square feet before rough edges are trimmed off and boards sized up.

7. The block value of the property as it stood on 31st March 1927, is as under—

	Rs.	A.	P.
(a) Leases and Concessions	Nil.		
(b) Lands (Survey Fees)	44	8	0
(c) Buildings	2,53,498	10	9
(d) Plant and Machinery	8,86,362	9	0
(e) Sundries	2,208	12	3
TOTAL	11,42,114	8	0

8. The above figures represent the actual cost of the various assets, so far depreciation has not been written-off. It should be.

9. As explained above, no depreciation has been written-off as we have not yet been in a position to do so.

10. The first charge to Capital account was made in April 21, at a time when prices of machinery and building material were very high. We are not in

a position to state what the cost at present day prices would be, but it would certainly be substantially lower. There is no reason to think the operating cost of a similar factory established to-day in similar circumstances would differ from that of ours, as all our machinery is thoroughly up to date.

11. Particulars of sums spent on Plant since commencement of production (August 1924)—

	Rs.	A.	P.
American split Pulley mild steel Pedestal bearing, etc.	774	5	0
Cast Iron	14	13	6
Connectors, Interchangeable lock, etc.	120	12	6
440 volts. 10 H.P. P.T. Starter, etc.	142	12	6
Motor Starting Paddles	2,309	15	0
Pulsometer Pump and Grinding Wheels, etc.	735	3	6
Armature Motor	28	5	6
Plumber blocks, spanner, shafting, etc.	507	4	0
Saw Benches	3,594	6	0
Glue mixer and spreader	3,679	5	0
New machinery from London	141	2	0
Hammering Press	296	10	6
Saws and sharpening machine	1,970	7	6
Saw benches	2,101	10	0
M. W. Gear Pulley	1,413	10	0
Travelling Trolleys	420	0	0
Starting Panels	1,636	9	0
Motor (368 H.P.)	2,842	12	0
Tenoning machine	1,705	1	0
Veneer Lathe and clipper	31,711	12	0
Rubber belt	919	12	6
Ball bearing rubber block	968	0	0
S. Type adjustable	569	4	0
M. S. Shafting	143	0	0
Ball Bearing Case	165	0	0
Wood working machine	11,530	14	0
Well brackets	335	0	0
R. S. Joists and W. S. Plates	535	0	0
White line belt	616	9	9
Hydraulic Machine	29,792	12	0
Adjustable Hangers	183	0	0
Saw machine	4,115	5	0
Hemming and Roll crimping machine	5,018	0	0
TOTAL	1,11,088	5	9

The rates of exchange varied from 1s. 5d. to 1s. 6d. The bulk of the machinery is English but some part American. Details will be found in answer 31 below.

12. It is not easy to answer this question for ours is a large trading Company, which has raised its capital and applied it to a wide variety of enterprises from time to time. It is therefore not necessary to ascertain from time to time the working capital of each department as all payments for materials, wages, etc., are made either from our Company's head office here or for stores from our Home Office and practically all Company receipts are

collected at the head office here so that our only concern is the working capital of the company as a whole. That is shortages in one department could automatically be met from surpluses from other.

13. The Company is able to provide all the working capital necessary and does not require to borrow additional capital.

14. See above.

15. In the light of the above replies it is not possible to answer this question.

16. The value of our stock of finished goods on the 31st March, 1927, was as follows:—

	Rs.	A.	P.
27,541 Full Size Tea Chests @ Rs. 3-8 each	96,393	8	0
923 Half Size Tea Chests @ Rs. 2-10 each	2,422	14	0
18,316 square feet 3-ply Boards @ annas 2 per square foot	2,539	8	0
80 Tea Seed Boxes @ Rs. 1-8 each	120	0	0
TOTAL	1,01,475	14	0

This may be taken as a fair average. In addition to this there was a stock of stores (consisting largely of spare linings and corner pieces which may be considered as finished goods), valued at Rs. 11,434. With the present market a period of 6—12 months elapses between production of tea chests and payment, but in the cases of ceiling the period is nearer 2 or 3 months.

17. The Company does not find it necessary to hold any stocks of coal or largely stocks of raw materials.

18. The Head Office of the Company is in London. The Company is not under the control of any managing agents, but Messrs. Macneill & Co. of Calcutta act as our local representatives.

19. (i) The annual amount of the London Office expenses as apportioned to the Veneer Mills account has been—

	Rs.	A.	P.
1924-25	8,273	5	6
1925-26	7,990	9	9
1926-27	6,709	10	6
TOTAL	22,973	9	9

There is no agents commission as there are no managing agents.

21. A dividend of 10 per cent. may be considered a fair return for ordinary shareholders in a ply wood factory. The reason for taking this figure is that a lower rate would not be likely to attract capital to a separate venture in this Country.

Average works cost per square feet of 3-ply Boards—

	1925-26. Annas.	1926-27. Annas.
Timber	270	314
Glue	472	369
Fuel	187	170
Labour	394	277
Supervision	372	322
Renewals and Repairs	085	090
Miscellaneous	160	055
Total works cost	1,940	1,597
Administration	714	485
TOTAL COST	2,654	2,082

No depreciation on plant and machinery has been included in the above.
23. Average works cost of a 3-ply Tea Chest measuring 19"×19"×24".

	Annas.	Annas.
Timber	4.75	5.53
Glue	8.31	6.50
Fuel	3.28	3.00
Labour	6.94	4.88
Supervision	6.56	5.67
Renewals and Repairs	1.50	1.59
Fittings	33.56	5.75
Linings		14.50
Nails		1.50
Grease proof papers		.50
Sundry stores and packing, etc.		.85
Miscellaneous—		
Repairs	.58	.52
New Minor Works	2.23	.46
Total	67.71	51.25
Administration charges	12.57	8.54
TOTAL	80.28	59.79

No depreciation on machinery, Plant and Buildings has been charged.

24. Calculating on the basis of total expenditure incurred during the complete year 1926-27 and ignoring administration costs, miscellaneous charges and depreciation, the following is the cost of various size chests:—

	(a) 19"×19"×24".	(b) 18"×16"×16".	(c) 22"×22"×19".
	Annas.	Annas.	Annas.
1. Timber	5.53	3.68	4.92
2. Glue	6.50	4.33	5.78
3. Power and Fuel	3.00	2.00	2.67
4. Labour, including repairs to machinery	6.47	4.31	5.75
5. Supervision	5.67	3.78	5.04
6. Terne Plates	5.75	3.44	4.58
7. Aluminium Linings	14.50	10.03	13.38
8. Nails	1.50	.69	.92
9. Grease Proof Paper	.50	.35	.46
10. Miscellaneous Stores and packing	.85	.87	1.15
TOTAL COSTS	Rs. 3 2.27	Rs. 2 1.48	Rs. 2 12.65

This ratio of costs is calculated on the approximate square footage of timber contained in each chest when finished, i.e., (a) contains 17.6 square feet (b) 11.5 square feet, (c) 16.19 square feet, which is approximately 1:3rds :8/9ths, while 5-ply Opium Chests converted to the basis of 3-ply will contain 36.13 square feet or a ratio compared with (a) of 1:2. It must how.

ever, be remembered that the calculation of costs of (d) is purely theoretical as we have not manufactured any chests of this description.

(d) *Opium Chests.*

Inside measurements, 34 3/4"×26 1/4"×14".

	Annas.
1. Timber	11.16
2. Glue	13.00
3. Power and Fuel	6.00
4. Labour including repairs to machinery	12.94
5. Supervision	11.34

Items 6 to 10, information not available as we have not manufactured Opium Chests, being unable to obtain quotations in time for the fittings specified by the Indian Stores Department.

25.

	Price of 3-ply boards per s. ft.	Price of Tea Chests, each. Full Size.	Half Size.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1924-25	0 2 9	4 8 0	...
1925-26	0 2 9	4 8 0	3 8 0
1925-26	0 3 0	...	...
1926-27	0 3 0	4 8 0	3 8 0
1926-27	0 3 6	4 0 0	3 4 0
1926-27	0 3 6*	3 10 0	2 12 0
	to 0 4 0		

26. (a) (i) One C. G. wagon with a marked carrying capacity of 220 maunds contains 1,000 full chests or 1,500 half chests.

From Margherita to any station on the D. S. Railway (where the bulk of our chests have been sold) there is a rate of Rs. 40 per C. G. On a full load this works out to a freight of 8 pies per full chest or 5 pies per half chest.

(ii) Freights to other markets where we have supplied chests work out as follows per full chest—

	Rs. A. P.
Mariani	0 1 3
Pandu	0 2 10
Sylhet	0 4 0
Bengal Doonars Railway	0 5 0
to	0 6 0

(b) The freights from Calcutta will be supplied by the firms importing foreign boxes.

27. (a) Our chief markets for ply wood boards are Digboi, Doom Dooma, Dibrugarh and Shillong, via Gauhati. The freight per square foot calculation complete C. G. loads works out as follows:—

(a) *Margherita-Digboi.*—Railway freight (1st class rates) is As. 2.4 plus 3 pies siding charge per maund, i.e., As. 2.7 per maund. 3-ply board weighs 12 oz. per square foot, i.e., 106.8 square feet per maund, which works out to a freight of .30 pies per square foot.

(b) *Margherita-Doom Dooma.*—Railway freight and siding charges As. 5 per maund, equal to .54 pies per square foot.

* According to timber used.

(c) *Margherita-Dibrugarh Bazar*.—Railway freight and siding charges. As. 7-5 per maund, equal to 83 pies per square foot.

(d) *Margherita-Shillong, via Gauhati*.—Railway freight to Gauhati As. 15-8 per maund. Equals 176 pies per square foot. From Gauhati to Shillong is Rs. 1-10 per maund, equals 2-92 pies per square foot. So that transportation of a square foot of 3-ply board from Margherita to Shillong works out to 4-68 pies.

NOTE.—One C. G. carrying capacity of 220 maunds will contain approximately 23,500 square feet.

(b) The freights from Calcutta will be supplied by the firms importing foreign chests.

28. Except in Shillong where we have lately appointed a local agent in the hopes of developing a market there, we have no agents for sales. The commission promised to the Shillong agent is 6½ per cent. but so far no business has resulted.

29. (a) Yes, our factory being a small one compared to the factories abroad is liable to the undercut in selling prices, because manufacturers who up-to-date held a monopoly for the supply of chests in India are now faced with competition in this Country and are probably willing to sell their chests at a loss over a certain period in order to close down serious competition in India, and then recoup losses by a subsequent rise in prices.

(b) Taking into consideration the opinions expressed above, it is our opinion that a factory producing and disposing of 100,000 chests per annum could be operated economically and successfully in India.

30. The answer to question 7 shows that of our total Capital outlay 80 per cent. has been expended on plant and machinery.

31.

<i>Machine.</i>	<i>Maker's name.</i>	<i>Date brought into operation.</i>
Log cross cut saw (1)	A. Ransome, England	1924
78"×60" Lathe (1)	Pickles & Son, England	1924
48"×30" Lathe (1)	Pickles & Son, England	1924
88"×60" Lathe (1)	Coe Manufacturing Company, U. S. A.	1927
78"×48" breather plate driers (2).	Pickles & Son, England	1924
78" Clippers (2)	Pickles & Son, England	1924
48" Clippers (2)	Pickles & Son, England	1924
88" Clippers (1)	Coe Manufacturing Company, U. S. A.	1927
54" Glue Roll (1)	C. Francis, U. S. A.	1926
48" Glue Roll (1)	Pickles & Son, England	1924
100 Gal. Glue mixer (1)	C. Francis, U. S. A.	1926
40 Gal. Glue mixer (1)	Pickles & Son, England	1924
420 ton Hydraulic Presses, 78"×48" (2).	J. Shaw, England	1 in 1924 1 in course of erection.
3-Throw Hydraulic pumps (1)	J. Shaw, England	1924
Circular Saw Benches (5)	T. Robinson, England	1 in 1923 1 in 1925 3 in 1927
Double cross cut saws (4)	T. Robinson, England, (2) Sagars, England, (2)	2 in 1927 1 in 1924 1 in 1925

<i>Machine.</i>	<i>Maker's name.</i>	<i>Date brought into operation.</i>
Tenoning machine (1)	T. Robinson, England	1927
Planing machine (1)	T. Robinson, England	1927
42" Scraping machine (1)	B. D. Whitney, U. S. A.	1927
Scraper Knife grinder (1)	B. D. Whitney, U. S. A.	1927
Lathe Knife grinder (1)	Coe Manufacturing Company, U. S. A.	1924
Lathe Knife grinder (1)	Pickles & Son, England	1924
No. 21 Bliss Presses (3)	E. W. Bliss, U. S. A.	1925
36" Foot Shears (2)	E. W. Bliss, U. S. A.	1925
Hemming machine (1)	Rhodes, England	1926
Dotting machine (1)	Rhodes, England	1927
Casein Grinder (1)	Harrison Carter, England	1926
Saw Gullecking machine (1)	T. Robinson, England	1926
Grinding machine for small cutters and tools (1).	A. Ransome, England	1925
30'×8' Lanc. Boiler (1)	Galloways, England	1923
175 H. P. High speed steam engine (1).	Bellie and Morgan, England	1923
120 K. W. D. C. Lighting Set (1).	Bellis and E. E., England	1927
120 K. W. D. C. Generator (1)	Eng. Electric Co., England	1923
18'×6' Steaming Cylinders (3)	Pickles, England	1924
40'×8'×7' drying room, equipped with heater and fan (1).	Davisons, Belfast	1926

32. Yes. It will be noted from the list given in reply to Question 31, that all our machinery is new and up to date and compares very favourably with that installed in foreign mills.

33. (a) As our machinery is new and up to date no further replacement of existing plant or addition thereto is contemplated at present.

(b) At the present moment an additional wing is being added to our factory to provide further storage room. It is estimated that when complete the cost will be in the neighbourhood of £1,200.

34. Competition is most severe from the Acme Company, the Venesta Company, the Luralda Company and the Hercules box. I am not in a position to state the Countries from which the raw material used by these Companies comes or whether any one of these Companies depends upon one Country alone. It is however understood that the greater part of the ply wood imported into India is originally manufactured in Finland whose export comprises 43 per cent. of the World's export. A further 36 per cent. of the world's export comes from Russia and the adjacent Baltic States which were carved out of the Russian Empire after the war.

So far as is known the above is equally true of tea chests and of other ply wood.

35. This information can be more accurately given by the importing firms.

36. I have no direct evidence on this point. I have, however, frequently been told by Garden Managers that they would gladly use our chests and have even recommended their use, but that they are in the hands of their Managing Agents who insist on the supply of foreign chests. I have been told this by Managers controlled by Messrs. The Planters' Stores and Agency Company (Hercules Chests), Messrs. Shaw Wallace, Messrs. Williamson Magor (Venesta Chests) and other houses. At the same time we have been faced with a sudden cut in the prices of all imported chests, the prices of

which in 1926 were fixed at anything up to 14 annas below those ruling in 1925.

37. No.

38. This question can best be answered by Agency houses in Calcutta.

39. We have reason to suppose special discounts are charged. On three occasions between October, 1924 and August, 1926 we have obtained quotations for various types of imported chest from Calcutta. On all these occasions we have found it difficult to tally the information given with our knowledge of the cost of similar chests to certain gardens, landed in Assam and in one case with the cost f.o.r. Calcutta. Moreover on two occasions the reply to enquiries in Calcutta gave us, "our lowest price."

Writing in February, 1927, one London Office who were making enquiries with the object of fixing our own prices for the coming season wrote as follows:—"The actual cost of a tea chest delivered in India is curiously enough very difficult to ascertain, though one would have supposed there would be no difficulty. However the Chest Companies have a habit of under-quoting in private as it were and when getting information from buyers it is usually hard to find out what linings are included." It must be remembered that our London Office has had years of experience in buying for our own gardens.

(5) *Supplementary Statement, dated the 25th August 1927 from the Assam Railways and Trading Company, Limited, Margherita.*

I enclose you a note giving replies to the various points on which further information was asked by the Board from me.

2. After my examination you were good enough to give me copies of the three letters submitted by the Indian Tea Association which in some particulars traversed statements made by ourselves. I wish to contradict the statements made in paragraph 6 of the Association's letter No. 1076, dated 16th July. It is not true that our sources of supply for lead linings and fittings are restricted to mills belonging to competitors. There is no difficulty in obtaining lead linings from sources entirely unconnected with the tea trade or with the manufacturers of tea chests, and our stock was supplied by an unconnected firm. In the case of our lead linings though some of these have been procured from the Empire Aluminium Company which is understood to be closely connected with the Acme Tea Chest Company, a large quantity has been secured from an entirely independent company which is rolling aluminium in Wales. Grease proof paper is used for a large variety of purposes and can be procured from innumerable sources. The same applies to nails. Terne plates are not monopolised by the tea box trade. They are steel plates covered with a zinc coating and superseded many years ago the tin plate for all purposes for which the latter was used. They can be procured from a variety of sources. I would also refer to remarks made in the Association's letter 1215 of the 5th August. No doubt it is true that the manufacturers of imported chests have produced one of which the timber has stood the test of time. The time however for which the timber is required to stand does not exceed one year and it has been abundantly proved that the timber of which our tea chests are made, many thousands of which have been well reported on by the London brokers, comply with every requirement of the trade.

(1) I was asked to estimate in terms of tons, and cft., the amount of hollong, hollock and makai that can be annually extracted at a reasonable cost. After further enquiry I should put the figures at hollong 8,000 tons, hollock 3,500 tons and makai 1,000 tons. To obtain the figures in cft. these figures should be multiplied by 50.

(2) The figures given for the cost of timber contained in one full sized chest in answer to question 24 was 5.53 annas. It was assumed when my evidence was being taken that this included 9 pies per cft. for freight and royalty 6 pies. I find on enquiry that it is not possible to load the small

timber trucks on which the freight is Rs. 8 with more than 120 maunds. The bogie timber trucks of which the freight is Rs. 16 can be loaded to 300 maunds. The fair figure to take for freight is therefore one anna. Taking the full consumption of timber to one full size box, as I have done in my evidence, as one cft. the details work out as follows per cft:—

	per Cft.
	Rs. A. P.
Felling, crosscutting and delivery at rail side	0 2 0
Loading on to trucks	0 0 4
Royalty	0 0 6
Freight	0 1 0
Supervision, establishment stores, etc.	0 1 8
TOTAL	0 5 6

(3) The rate for royalty for firewood in the unclassed state forest which is also applicable to our timber lease is annas 12 per 100 cft.

(4) I was asked to state the minimum alterations necessary in the specification of opium boxes to enable us to tender for them; these are as follows:—

(a) that we should be allowed to supply for the corner strips 28 gauge galvanised iron strips instead of the specified tin strips. Tin strips are only made 28" long.

(b) that we should be allowed to use 1½" or 1¾" nails instead of the 1¼" specified which are not generally procurable though used, it is believed, by the Venesta Company.

(5) I was asked to explain exactly what was Rs. 8,338, equivalent to 3-18 annas per box, under head V railway freight in the cost sheet forwarded with my letter of the 29th July. I stated in my evidence that a part of this was freight paid by us on boxes sold. It was pointed out that this amount should be deducted from the cost f.o.r. factory and I was asked for details of the rest. I have ascertained that included in the figure of Rs. 8,338, for freight paid on boxes sold was Rs. 544 only which is equivalent to 21 per chest. The cost f.o.r. factory should be reduced by that amount. The balance of Rs. 7,794 was freight paid on inward materials such as glue, terne plates, nails, linings, etc. This has been duly taken into account in the costs as given in answer 23 to the questionnaire. Please compare remarks under six below.

(6) I was asked to explain why the figures given in III (3) (4) (5) of the cost sheets sent with my letter of the 29th July for tea chest fittings, sundry stores materials and customs duty, amounting 19-92 annas did not agree with the figures in answer 23 to the questionnaire for fittings, linings, nails, grease proof paper, sundry stores and packing, amounting to 23-10 annas. The explanation of this is that the latter includes freight which has been shown separately under V transport charges in the cost sheets. If the 3-18 annas there is added to the 19-92 annas under head III the total of 23-10 will result, although there is a slight difference in allocation between the two sets of figures, e.g., sundry stores and materials as against sundry stores and packing.

There is however a very slight error and both figures ought to be reduced by 21 as shown in 5 above.

(7) With reference to question 25 I was asked to prepare a revised statement showing the actual nett prices recovered after allowing for freight (if any) paid on each consignment. The statements are attached.* It will be noted that the totals do not tally exactly with those given in answer to question 5, as sales are in some instances made from stock and not from current output. The reason the total of Rs. 360-12 freight paid in 1926-27

* Not printed.

does not tally with the figure Rs. 544 given in paragraph 5 above appears to be that the former figure tabulated by Veneer Mills' Manager deals with despatches made by him in 1926-27 while the latter tabulated by Chief Accountant deals with bills passing through his office in that year.

(8) I was to collect invoices for fittings to prove our contention that the reduction in the price of the imported chest from 1926 to 1927 was not due to a corresponding reduction in the cost of fittings. I attach 9 invoices together with a covering list to prove this point. The return of the invoices when done with is requested.

(9) I was asked to suggest a formula for modification of section 42 of the Sea Customs Act, 1878 (Act VIII of 1878), which would achieve the object of preventing the drawback allowable on re-export in the case of tea chests and their fittings, but would not interfere with the similar drawback in the case of, say, a motor car re-exported after 18th months' use. I think this could be done by adding after the word "determines" at the end of the section the following words:—

"and that the use for the purpose of which the goods were imported has not been exhausted".

(10) Mr. Adams was asked the actual cost of the steel building of the Veneer Mills before erection (excluding office, boiler house, power house, etc.), and the cost of the 78" lathe and clipper supplied by Messrs. Pickles in 1922 and brought into operation in 1924 (see answer to question 31. The Coe clipper was brought into operation in 1927, not 1924). The figures are as follows:—

Steel Building.

L. I. 3487.

	£	s.	d.	Rs	A.	P.
London cost	8,228	5	7=	1,23,424	3	0
River freight	...			7,430	2	0
Landing charges	...			823	0	0
Customs duty, etc. . . .	...			8,688	5	0

Peeling Machine.

L. I. 3567.

	£	s.	d.	Rs.	A.	P.
London cost	1,662	16	7=	24,942	7	0
River freight	...			586	4	0
Customs duty, etc. . . .	...			817	11	3

Clipping Machine.

L. I. 3492.

	£	s.	d.	Rs.	A.	P.
London cost	500	12	9=	7,509	12	0
River freight	...			298	3	6
Customs duty, etc. . . .	...			537	15	0

Aluminium sheets.

Invoice 4225, dated the 21st January 1926, Empire Aluminium Company shows 1s. per set for linings of full sized chests.

Invoice 4384, dated the 7th April 1927, Empire Aluminium Company shows 1s. per set.

Invoice 4240, dated the 18th March 1926 Aluminium Corporation shows 1s. 1d. per set.

Terne plates.

Invoice 4226, dated the 21st January 1926, S. J. Burrell Prior 37s. 6d. per box of 112 sheet.

Invoice 4244, dated the 8th April 1926. S. J. Burrell Prior 37s. 6d. per box of 112 sheet.

Invoice 4356, dated the 6th January 1927, Gorsedd grease finish 47s. 6d. per box of 112 sheet.

Nails.

Invoice 4241, dated the 18th March 1926 James Gibb 100 kegs at 19s. 6d. per cwt.

Invoice 4364, dated the 3rd February 1927, James Gibb 40 kegs at 22s. per cwt.

Caseine.

Invoice 4223, dated the 7th January 1926, Caseinefabriek "Ceres" 100 bags at 55 florins per 100 kilos and 1 per cent. commission.

From Dudhia Dairy Company early in 1926 we bought at Rs. 27 per cwt. Ahmedabad. Fluctuated as high as Rs. 39 and is now Rs. 33.

(6) *Further Supplementary Statement, dated the 31st August 1927 from the Assam Railways and Trading Company, Limited, Margherita.*

As promised, Mr. Adams wired as follows to Messrs. Wrights of Veneers Limited:—

"Wire price of alder and birch per cube f.o.r. shipping ports and c.i.f. London for Tariff Board information. Letter following: Adams".

He has received the following reply, dated London, 29th August:—

"Impossible reply your cable without further information. Canadian birch seventeen inch diameter veneer logs five shillings c.i.f. London Wrights."

It is hoped that further information will be supplied from London on receipt of Mr. Adam's letter.

**THE ASSAM RAILWAYS AND TRADING COMPANY, LIMITED,
MARGHERITA.**

B.—ORAL.

**Evidence of Messrs. E. A. A. JOSEPH and W. ADAMS recorded at
Calcutta on Friday, the 12th August 1927.**

Introductory.

President.—The Veneer Mills form part of the enterprise which is managed by the Assam Railways and Trading Company, Limited?

Mr. Joseph.—Yes.

President.—In addition to the Veneer Mills the Company also manages what works?

Mr. Joseph.—It has coal mines; it has the Dibrugarh-Sadiya Railway; it has a tea garden and it has various subsidiary things to the coal mines, that is to say colliery workshops, colliery saw mills. In the same way the Railway has its own workshops. We do some outside work too. It has got colliery brick works, but the main 4 industries are:—(1) Timber including Veneer Mills, (2) The Railway, (3) The coal mines and (4) The tea garden.

President.—The capital of the Company comprises all these enterprises?

Mr. Joseph.—Yes.

President.—It is a sterling Company, is it not?

Mr. Joseph.—Yes.

President.—What is your exact position on the Company?

Mr. Joseph.—I am the Agent and General Manager working directly under the Board of Directors at home.

President.—The Agent and General Manager of the railway?

Mr. Joseph.—The Railway and of the whole Company.

President.—And Mr. Adams?

Mr. Joseph.—He is the Manager of the Veneer Mills.

President.—You started the manufacture of ply wood in 1924.

Mr. Joseph.—Though we completed the works in 1923, we practically commenced turning out in 1924.

Ply wood for purposes other than tea chests.

President.—If we exclude from consideration for the moment tea chests, what is the position as regards your manufacture of ply wood for other purposes? You are manufacturing at a small profit?

Mr. Joseph.—Yes, with a small profit from ceiling boards and panels. There is not much demand to keep the Veneer Mills going.

President.—The demand at present for ply wood other than tea or other chests in India is very small.

Mr. Joseph.—Yes, it is very small and of course it is non-recurring. If the panels have got to be replaced, we should be condemning ourselves.

President.—In the interests of the ply wood industry it is desirable to expand this demand.

Mr. Joseph.—Yes, certainly.

President.—So that anything which tended to raise the price of panelling which is avoidable should be avoided.

Mr. Joseph.—Yes, anything which tended to raise the price of Indian made panelling.

President.—Any kind of panel. Obviously if you wish to extend the market, you cannot do it by making it more expensive.

Mr. Joseph.—I have no objection to see the imported article being made more expensive provided the Indian made article is not made more expensive.

President.—If the imported article sets the price out here except in regard to the local demand, if we make the foreign article more expensive, the Indian made article would naturally rise correspondingly in price.

Mr. Joseph.—It would not rise to a price which would prevent the spread of the demand.

President.—The tendency would be so. I imagine you would also agree that if we raise the price of the article, we would be restricting the demand.

Mr. Joseph.—Actually in the case of this industry it would not come into competition with the imported article. Our price is not really determined by the imported article. I am perfectly satisfied with the price we are getting now.

President.—So far as ply wood is concerned, the position is satisfactory.

Mr. Joseph.—Provided it is left alone.

Dr. Matthai.—The distinction between the two is this. As far as tea chests are concerned you have now in India a fairly big market and that market is being encroached upon very much by imported chests, so that the Indian industry does not have a fair chance. With regard to ply boards required for purposes other than tea chests, there is, at present, very little market in the country. It is not merely a question of competition from abroad. There is very little market in the country. Therefore the problem there would be rather to develop the market than to protect it.

Mr. Joseph.—I think that is true.

President.—At the commencement of this enquiry we want to be clear in our own minds exactly what it is we have got to enquire into. If, as regards ply wood other than that used in the manufacture of tea boxes, the companies are really not suffering very much from foreign competition at present, it would appear to be more desirable to direct our attention almost exclusively to the question of tea chests than to the question of ply wood.

Mr. Joseph.—I think that is true as regards the present position.

President.—I understand from your application what you really want is a steady demand for your ply wood and that steady demand cannot be obtained for panelling, because the demand is not there. Therefore it seemed to follow that if it appeared on an examination of the whole question that a measure of protection was desirable on tea chests and if we gave you protection on tea chests, it would meet all your requirements.

Mr. Joseph.—I think that is true.

President.—So far as you are concerned, you would not press for any special import duty on panels.

Mr. Joseph.—We would certainly not press for relief in the matter of panels if we got relief in the matter of tea chests.

President.—That is what I wanted to ascertain.

Dr. Matthai.—We were looking at a report which was presented to the Railway Board sometime ago by Mr. Norman White.

Mr. Joseph.—I have been trying to get a copy, but I could not get it.

Dr. Matthai.—We were on this question of panelling trying to form a rough estimate of what the demand in the country might be for panelling in respect of railway coaches and what this report says is:

“If you took a typical railway coach, the amount of panelling would approximate to about 2½ per cent. of the total wood work in the coach”.

Mr. Joseph.—Does he specify what class of carriage he is speaking about?

Dr. Matthai.—Here is the copy.

Mr. Joseph.—He does specify.

Dr. Matthai.—I would like you to look at that and give us your opinion on the estimate he makes.

Mr. Joseph.—I see no reason to dispute those figures, but I have not got enough knowledge. Why, if we are using 5-ply boards, could we not use it for partitions? I see he excludes the whole of the partitions.

Dr. Matthai.—It would have to be a thicker panel both for roof boards and for partitions. 3-ply board would be thick enough for the roof board.

Mr. Joseph.—I would not like to answer this question without asking the coach builder.

Dr. Matthai.—You have attempted introducing the 3-ply board in your own railways.

Mr. Joseph.—Yes.

Dr. Matthai.—But you are doing that entirely for panelling.

Mr. Joseph.—My impression is we have got it as the division between two compartments. I think so, but I am not quite certain.

Vencer Mill plant.

President.—Turning to your answer to question 4, on a comparison of your plant with the plant of Messrs. Bird and Company, there really seems to be very little difference in the number and kind of your machines except that you employ the hot process and they employ the cold process. Otherwise so far as we are able to judge, it would appear that your machines are capable of the same output as theirs.

Mr. Joseph.—Not quite.

President.—How many lathes are there working in all?

Mr. Joseph.—Two are working now.

President.—Would it be correct to say that your output is limited by the number of hydraulic presses?

Mr. Joseph.—Yes, if we had a third press, our capacity would increase from 1,95,000 to 3,00,000 full size tea chests.

President.—In estimating costs which naturally vary according to the output, it would not be unreasonable to take Messrs. Bird and Company's figures.

Mr. Joseph.—No.

President.—So far as your Company is concerned, if we based our calculations on the Assam Saw Mills and Timber Co.'s cost, you would have no objection.

Mr. Joseph.—It is a difficult question to answer without having Bird's costs in front of one.

President.—There is nothing confidential about their costs.

Mr. Joseph.—I have seen them, but I have not got them in front of me now. I may safely say, yes.

President.—We must estimate on a reasonable output not on an output limited by the number of presses. Let me put it in another way. So far as we are able to see the lowest output of ply wood in a mill in Finland is about 3,000 tons a year. We have not worked out exactly what that corresponds to in terms of tea chests. We think it would come to 5 lakhs of chests.

Mr. Joseph.—Is it 3,000 tons of timber or 3,000 tons of ply wood?

President.—It is ply wood. In considering the question of economic output we have to consider what the output in European countries is. Therefore when we are estimating the costs, we have to take the costs in a factory where the output is comparable.

Mr. Joseph.—Yes.

President.—So that you think it would be a reasonable thing to do.

Mr. Joseph.—Yes.

Hot and cold gluing processes.

Dr. Matthai.—I wish to get some idea of the relative advantages of the hot process system and the cold process system. I will tell you the point from which we look at it. We have gathered from elsewhere that the hot process is supposed to have special advantages where you are using say blood albumen glue, but where it is casein glue its advantages are not quite so marked. I should like to have your opinion on that point.

Mr. Adams.—In the cold process you have simply to trust to the saturation of the glue through the boards.

Dr. Matthai.—That is to say in the cold process the drying takes place practically at normal temperature.

Mr. Adams.—Yes. The disadvantage that you have is that it takes a much longer period.

Dr. Matthai.—It takes a longer time.

Mr. Adams.—Yes. With the hot process such is not the case. You perform the whole operation in a much shorter time, i.e., you steam the boards and boil the glue through the board.

Dr. Matthai.—When you have the cold process it means you have to spend so much more time over it and you require a little more space.

Mr. Adams.—You want more apparatus and money.

Dr. Matthai.—Against that there is all the expenditure on fuel in the hot process, is not that so?

Mr. Adams.—I don't think that is a point worth considering at all.

Dr. Matthai.—You don't think so.

Mr. Adams.—No.

Dr. Matthai.—Are you speaking primarily from your experience in India or from your experience elsewhere?

Mr. Adams.—I am speaking from my experience of other countries too.

Dr. Matthai.—Have you much experience of both the systems?

Mr. Adams.—Yes, when I first went into the ply wood business, we were using the cold process.

President.—Exactly where had you experience besides India?

Mr. Adams.—In England, in America and in Russia. When I first went into the ply wood business in 1908, we were using the cold process. The hot process was not invented then. The hot process was simply the invention of my employer. He was the man who brought in the hot process.

Dr. Matthai.—In earlier days practically the only glue that was used was blood albumen glue.

Mr. Adams.—Casein was used all the way through.

Dr. Matthai.—From the beginning?

Mr. Adams.—Yes, even as long ago as 1908.

Dr. Matthai.—Don't you require more skill in working the hot process than in working the cold process?

Mr. Adams.—I don't think so.

Dr. Matthai.—Persons who have not had sufficient experience of working the hot process might spoil the product.

Mr. Adams.—I don't think so, any way not under proper tuition.

Dr. Matthai.—If you take a tea chest or a packing case made of ply wood, obviously you don't need to exercise the same sort of care and skill because the product is an inferior kind as compared say with furniture?

Mr. Joseph.—I don't agree with you. We have got to exercise as much care in making tea chests or packing cases as in making furniture. The difference will be more in the quality of the timber than in the quality of the work.

President.—I was thinking of the gluing process. Possibly a process which would ensure that the ply boards stick firmly together for a year or 18 months would be sufficient for the tea chest industry, whereas for the furniture industry, it would not be so.

Mr. Joseph.—As I have mentioned before it is just as essential to be careful in making a tea chest as it is in making furniture, because the tea chest is subject to more rough usage than furniture. If the glue lasts 18 months, it is permanent.

Dr. Matthai.—When you are trying to make a ply wood tea chest in India, you are up against very severe competition from elsewhere. It is therefore of very great importance that you should reduce your cost to the minimum. In these circumstances would you not be justified in giving up the hot process and adopting the cold process because it might mean a slight saving in expenditure and also it might mean this. In a country like India it is so difficult to get always the required skilled labour.

Mr. Adams.—There are people as clever as myself who are already working in the industry. If for some reason or other I went back, the system would not fall on that account.

Dr. Matthai.—Supposing next year you gave up the hot system and adopted the cold system, would that reduce the expenditure?

Mr. Joseph.—No, the capital expenditure might be reduced but not the working expenses.

Percentage of the various sizes of chests.

President.—Turning to question No. 6: could you give us the percentage of each size of chest which you supplied, say, last year?

Mr. Joseph.—I could get it for you. Except for the two standard sizes given at the top—standard full size and standard half size—we have only supplied two or three thousand boxes of others for trial orders, which we managed to get through our London office. Our London office people went round seeing the various tea houses in London and got trial orders from Messrs. Octavius Steel and Company, Messrs. Macneill and Company, Messrs. Duncan Brothers and the Jokai Tea Company. Those only amount to 10,000 boxes, and again they include a good number of the two standard sizes. So the actual number of boxes of what we may call non-standard sizes is negligible.

President.—I take it that by far the greatest production is 19×19×24.

Mr. Joseph.—Yes. The half size is only used for the lower grades of tea which of course are exported in smaller quantities.

President.—Could you tell us the amount of tea contained in a tea chest?

Mr. Joseph.—About 110 to 120 lbs. of tea.

President.—We were told that the amount of tea contained in a box would be about 110 lbs.

Mr. Joseph.—It goes up to 120 lbs. It differs not only according to the nature of the tea but also to some extent according to the way in which it is packed.

President.—The mean between 110 and 120 lbs. would be 115 lbs. Would it be fair to take that as the average weight of tea contained in a box?

Mr. Joseph.—I think it would be fair enough.

President.—I suppose the weight of tea in these boxes could be said to vary roughly according to the sizes of boxes.

Mr. Joseph.—Oh, yes, that is between the various full sizes and between the various half sizes, it will be according to the sizes of the box. But

when you get the half size as against the full size, the half size is generally used for dust, sweepings and fannings, which bulk for bulk weigh much more.

President.—Taking generally, it would be a fair proposition to say that.

Mr. Joseph.—When you get down to a certain point, the variation is hardly in proportion. My point is that if you take the fannings and dust, they are a little heavier.

President.—Your point is really it depends upon the kind of tea packed.

Mr. Joseph.—Yes. If you take broken orange pekoe and other better qualities, the weight contained in 19×19×24 and 21×21×24 boxes will vary according to the capacity of the box.

President.—And the variation between the dust and the broken orange pekoe would be considerable.

Mr. Joseph.—Very.

President.—Let us take the half size box, that is 18×16×16. That will hold how much broken orange pekoe?

Mr. Joseph.—I don't think they pack that tea in boxes of that particular size.

President.—Could you give us any estimate?

Mr. Joseph.—I can tell you in a moment. It is a question of capacity. I think it would be about 64 lbs.

President.—The difference is 16 lbs.

Mr. Joseph.—Yes.

Dr. Matthai.—If it were a question of producing the same size in a factory like yours, would it to any extent reduce the cost? Supposing for example you worked up to 2 or 3 lakhs of boxes and if it were possible for you to have your whole output confined to some standard size, say 19×19×24, would it reduce your cost?

Mr. Joseph.—I don't think that it would cost us any more to make two sizes, viz., full size and half size. But when we get a lot of fancy sizes, it does.

Dr. Matthai.—When you are working a factory, you will naturally be compelled to accommodate yourself to the conditions in the market. The market wants half a dozen sizes and when you do those sizes, your costs are likely to increase to that extent?

Mr. Joseph.—Very, very slightly.

Dr. Matthai.—We had a suggestion made to us that if you were making 19×19×24 size on any considerable scale, then it would be an advantage to have to make some smaller sizes too because the wood that might be rejected as useless for the larger size might come in rather handy in making the smaller sizes, so that it might really be a measure of economy to have a few smaller sizes also? Have you any opinion to offer?

Mr. Joseph.—I don't think myself a couple of inches here and there would make much difference.

Dr. Matthai.—You don't think that the question of standardisation is very important.

Mr. Joseph.—It is only a question of convenience to have standard sizes, but I should not say it is very important.

Dr. Matthai.—The only thing is that there would be more labour in adjusting your saws.

Mr. Joseph.—That will not cause serious trouble.

Dr. Matthai.—Would it cause disruption of the machinery?

Mr. Adams.—You cannot trust a labourer here to do that. The moment you get a different size, you have got to have a supervisor to do that.

President.—As regards clipping machines, they also have to be adjusted to the different sizes.

Mr. Joseph.—With a little organisation, you can get rid of most of the trouble. It is only a question of organisation.

The Block Account.

President.—With reference to your reply to question No. 7, the block account, I suppose, includes all the plant mentioned in reply to question No. 11.

Mr. Joseph.—Yes.

President.—Does it also include elephants?

Mr. Joseph.—The way we are working is this. We have got a timber supply department which supplies at a fixed rate. The timber department has got elephants and it supplies the veneer mill with timber at cost.

President.—So far as the veneer mill is concerned, you purchase from the timber department at a fixed rate.

Mr. Joseph.—Yes.

President.—How is that rate fixed?

Mr. Joseph.—The rate up till now was fixed in this way. We calculated what the actual cost to the timber supply department would be but our Board was anxious that the timber supply department should be purely a supply department and not a commercial department. It did not allow that department to work for a profit. If there was profit or loss in the timber supply department at the end of the year, it would again be credited or debited to the consuming departments which are three, viz., the veneer mill, the saw mill and the sleeper plant. There have always been adjustments in the case of the Veneer mill, which is getting timber at six annas a c.ft. Again two or three months later, the Chief Accountant will come along and make a further debit in the account for the subsequent month because he finds that the timber supply department has been working at a loss. All these variations have been included in the costs that have been given here. But from the 1st of April this year, we have taken the bull by the horns and we are going to work the timber supply department as a commercial department because there is too much trouble in the other method of keeping the accounts.

President.—That is to say from this year, your timber department will sell timber to the Veneer mill charging the usual profit.

Mr. Joseph.—Charging the fixed rate and bearing at the end of the year the profit or loss.

President.—The rate fixed will include a fair profit.

Mr. Joseph.—Yes.

Dr. Matthai.—That does not apply to any of these figures that you have given.

Mr. Joseph.—In all the figures I have given, adjustments have been included.

President.—In answer to question 10, you say "we are not in a position to state what the cost at present day prices would be". Could you give us any estimate at all?

Mr. Joseph.—We could get certain machines cheaper now. For instance, our original press cost us £5,600, whereas the new press that we bought cost us only about £3,600.

Dr. Matthai.—Are they comparable?

Mr. Joseph.—They are the same. The reduction is not due solely to the fact that the price of machinery has gone down. It is due to the fact that the press which is really made by a man John Shaw bears the name plate of Pickles. They purchased parts from the makers and stuck their plate on them and made a large profit. It is partly due to that and partly due to a genuine reduction in price. The second machine we bought we ordered direct from John Shaw and not through Pickles.

President.—That would not be a typical case.

Mr. Joseph.—No. Mr. Adams will probably give you more information about these particular machines than I can.

President.—Let us take the veneer lathe and clipper.

Mr. Adams.—That is the new American machine. It costs about Rs. 31,000. Our old machine comes to more than that. We can get the figures from our records. We have not got them here.

President.—Would it come to Rs. 50,000?

Mr. Adams.—My impression is that it is more than that. I don't like to give you a guess.

Dr. Matthai.—Your purchases were actually completed between 1921 and 1922.

Mr. Joseph.—I think some of the purchases were made before 1921.

Dr. Matthai.—Do you think we should be justified in assuming that between the price in 1920-21 and the present rupee price of machinery of the same kind, the difference would generally be about 40 per cent.?

Mr. Joseph.—I should say it would be about 25 per cent. as compared with 1920-21.

Dr. Matthai.—The peak was really reached in early 1920; in 1921 the decline had begun.

President.—If we put the replacement value of your block at Rs. 8,50,000 would that be reasonable?

Mr. Joseph.—You must remember that our figure includes freight which does not go down in the same proportion.

President.—Your buildings would come down considerably because the price of steel and cement has gone down.

Mr. Joseph.—I think the figure would be nearer 10 lakhs. I start with this that out of a total of 11,50,000 the figure for plant and machinery is Rs. 8,86,000 of which Rs. 1,11,000 is machinery which has been bought quite recently at a lower price. If you subtract that Rs. 1,11,000 machinery imported this year from Rs. 8,86,000 it comes to Rs. 7,75,000. There is a good deal of freight in that. You can take off something like a fifth of Rs. 7,75,000, that is about a lakh and a half.

President.—And your buildings?

Mr. Joseph.—I don't really know how much it would come down.

President.—Can you offer any information, Mr. Adams? Your buildings are mainly cement and steel. Steel and cement prices will have gone down by half. If we take your erection charges at, say, 20 per cent., would that be fairly reasonable?

Mr. Adams.—Yes.

President.—That would be about half a lakh. So that so far as your firm is concerned you will probably agree that the present replacement value will not be more than Rs. 9 to 10 lakhs?

Mr. Joseph.—I should say Rs. 10,00,000.

President.—When we were considering Tata's new extensions, which we reduced in value to Rs. 12,00,000 in our 1924 report, we then considered what further depreciation had taken place since then and we brought it down to Rs. 9,50,000. If we are to take the same figure for your works we should get down to somewhere about Rs. 9,50,000.

Mr. Joseph.—I think it is probably too low, there is such a very large amount of freight and labour which have not decreased. Labour has increased, freight from Calcutta has not decreased.

Dr. Matthai.—I think it is probable that a considerable part of your plant was bought after the prices had already declined. Tata's purchased the machinery at the very worst time.

Mr. Joseph.—That is correct. I think it would be somewhere about Rs. 10,00,000.

President.—We got figures from Messrs. Bird and Company as regards the present cost of erecting a factory like their factory. They obtained prices from home and they put the present day value of a factory producing 5 lakhs of boxes a year at Rs. 10,30,000. So that your replacement value would be somewhere between 9 and 10 lakhs.

Mr. Joseph.—Yes.

President.—You were saying just now that a certain number of machines which did not prove satisfactory have been replaced.

Mr. Joseph.—I don't think I said that.

President.—You were speaking of a press I think.

Mr. Joseph.—These are the driers. We had to replace some coils between the driers.

President.—Was that an expensive business?

Mr. Adams.—It cost us Rs. 2,500 to replace these coils.

President.—As compared with your block account your expenditure on replacements would seem to be smaller?

Mr. Joseph.—Yes. There are two things which we do not use at present, one is a small Pickles lathe, which I mentioned just now, and which will be used the moment we get more orders; the other is a knife grinding machine; and also three Bliss presses for making corner strips. We have replaced these with a small machine which does not occupy more space than a table.

Working Capital.

President.—Turning to question 12, could you give us the average amount for last year under the head 'Stocks of finished articles'?

Mr. Joseph.—I am not quite sure exactly what it is you are asking for.

President.—What we want to know is the amount of money which the firm has out under these three heads, viz., stores, stocks of finished articles and outstanding accounts. This money must either be borrowed or comes out of capital, and forms the working capital. The interest on such working capital forms part of the overhead charges.

Mr. Joseph.—The reason why we have got a stock of boxes, which is money locked up, is solely because we have not been able to get sufficient demand yet and that is the reason why I have said that we do not get payment roughly for a year because we really sell in one year tea chests we made the year before. We have a heavy stock, but if we had a demand we could sell as fast as we produced and get money sooner. Two companies, namely the Makum (Assam) Tea Company Limited and the Nandang Tea Company Limited, are very closely associated with us and we get the money back almost at once. Assuming that we had a demand which would enable us to sell boxes as fast as we can turn them out, I don't think we should want a working capital of more than Rs. 25,000.

President.—Of course your timber is adjusted in your books month by month, I mean to say, no interest is paid on that.

Mr. Joseph.—No.

President.—So that if you have no outstanding debts your main charge on working capital would be stores and outstanding accounts?

Mr. Joseph.—Yes. Rs. 25,000 will do I think.

Dr. Matthai.—Have you done any sales so far outside these two companies with which you are associated?

Mr. Joseph.—Yes, this year we had an order for 5,400 boxes from Messrs. Macneill and Company, and some other trial orders mentioned before.

Dr. Matthai.—I suppose you are not in a position to express an opinion as to within what time you might expect payment in regard to such sales?

Mr. Joseph.—I can hardly answer that because in certain cases payments are made in London. In the case of Messrs. Octavius Steel and Company we send the bills home and our home people realize the money.

Works Costs.

President.—Coming now to questions 22 and 23—'Works Costs'—could you give us the output on which these costs have been calculated?

Mr. Joseph.—They are calculated on the actual output.

Dr. Matthai.—You have given us the output for 1926-27 in your separate estimate of costs which you have sent us.

Mr. Joseph.—Our answer to question 5 will give you the output. In answer to question 23 I give you the costs for 1925-26 and 1926-27.

President.—These are for 3 ply chests measuring 19×19×24? You have given the total output of chests but your costs are given on one particular size, that is for 19×19×24?

Mr. Joseph.—I think our Chief Accountant must have adjusted the figures actually on the different size of the boxes; he has put the total consumption of timber and other things.

President.—That is to say you have divided your output of ply wood by 17·6 the size of a chest 19×19×24?

Mr. Joseph.—But we have actually divided by 20, for contingencies.

President.—In reply to question 22 you give the total ply board required in one box of 19×19×24 as 20 sq. ft. So if I divide the total square feet by 20 that gives us the number of tea chests corresponding to the ply board. What I want to know is your cost based on that.

Mr. Joseph.—In answer to question 5 we have actually taken our superficial area of the tea chests as 17·6.

Dr. Matthai.—That is apparently what you have done in 1926-27.

Mr. Joseph.—I see in the answer to question 5 I have taken the amount of ply wood contained in the box.

Dr. Matthai.—Have you got a copy of the letter that you sent us on the 29th July, 1927?

Mr. Joseph.—I think what we have done in question 5 is we have taken the actual area of finished ply wood in the box. In the case of a full sized box we have taken it at 17·6 ft. In the case of the other box we have taken whatever the actual superficial area of ply wood finished in the box. We have not allowed anything for cuttings. I think that is quite clear.

President.—What is the size you have taken in the production of the tea chests on which this is calculated?

Mr. Joseph.—I think we have taken it on the actual finished superficial areas of the chests.

President.—But how many tea chests am I to take in considering your costs for 3-ply box?

Mr. Joseph.—Do you want to know how many full size boxes there are in the total number of chests? I will send you the information later on.

President.—I want to know the number of full size boxes on which the cost given in answer to question 23 is calculated.

Mr. Joseph.—29,606 full size boxes in 1926-27.

President.—In 1925-26.

Mr. Joseph.—I am afraid I haven't got it here.

Dr. Matthai.—For 1926-27 you give these detailed cost figures. You have explained in the letter that you sent us on the 29th July precisely the total output in terms of tea chests on which you base that. If you look at your letter dated 29th July enclosing your cost sheet, you will see that you have given the full size chests as 29,606, but then in taking the ply boards you have quoted 1,60,000 sq. ft. on a basis of 17·6 ft.

Mr. Joseph.—Besides 29,606 tea chests, we actually turned out 1,60,000 sq. ft. of ply boards and sold it as panels.

Dr. Matthai.—That is quite true. In the cost sheet that you give us enclosed with that letter, you take your total expenditure under each item and divide it by 42,230 which is the equivalent of your whole output in terms of tea chests.

Mr. Joseph.—I don't follow you.

Dr. Matthai.—Look at the first sentence in the cost sheet just on the top line, and what you have done there is to take your ply board as the equivalent of tea chests on a basis of 17.6 ft. What I am suggesting is this. If you are going to take your cost figures for 1926-27, you ought to divide 1,60,000 not by 17.6 ft. but by 20 ft. to get the tea chests.

Mr. Joseph.—I think that is true.

President.—It would put up all your costs.

Mr. Joseph.—I think we have not allowed for wastage.

Dr. Matthai.—There is also another difficulty. When you convert these ply boards into tea chests, you don't make any adjustment for the extra timber you require for battens corresponding to these tea chests. Your fittings are all right, but what about the timber you require for battens?

Mr. Joseph.—That is included in fittings.

Dr. Matthai.—It must come under timber.

Mr. Joseph.—I think it has come in. The timber figures are arrived at by taking the actual consumption of timber in the mill.

Dr. Matthai.—That is true. That is what I think you have done. You have Rs. 14,680 which is your actual expenditure on timber. That is because 1,60,000 sq. ft. was really in the shape of ply boards. Assuming that it was in the form of tea chests, there would have been a slight increase in your expenditure for timber on account of the battens required.

Mr. Joseph.—I think not. The actual cost of timber charged to the mill there includes the cost of the log which is cut up. It is not wastage. We have not got other timber coming in.

Dr. Matthai.—The battens would have come out of the timber actually used for the ply board.

Mr. Joseph.—Out of the cores of the logs peeled for the ply board and a certain number of rejected sleepers. There again if the mill is paying Rs. 14,608 for timber, that includes the timber which has been used up in the form of battens, etc.

Dr. Matthai.—That is to say if you had made tea chests instead of ply board to the extent of 1,60,000 sq. ft. the extra timber required for the battens would not have necessarily meant any advantage in respect of your timber cost.

Mr. Joseph.—No.

Dr. Matthai.—That is really your point.

Mr. Joseph.—Yes.

Kinds of timber.

President.—Before actually examining your cost figures for timber, I would like to ask you a few questions about the kind of timber you use. The principal timbers which you extract for your saw mills and for the veneer mills are Hollock and Hollong.

Mr. Joseph.—Yes.

President.—You use Hollong exclusively for the veneer mill.

Mr. Joseph.—Exclusively for tea boxes, not for the veneer mills. I think you might add one timber to the two mentioned above, viz., Makai. In a tea chest we solely use Hollong.

President.—You could use Hollock.

Mr. Joseph.—Yes, as the Assam Saw Mills do.

President.—Would that be more expensive?

Mr. Joseph.—I don't think it would. In fact our timber man wants us to use it. It is much more easily accessible than Hollong.

President.—Hollong is a reserved tree which is used for other purposes.

Mr. Joseph.—Yes, but I don't think it is advisable especially when we are struggling to get a market to vary the construction of our boxes.

President.—Could you give us any idea as to the annual supplies of Hollock and Hollong?

Mr. Joseph.—It is exceedingly difficult because no forest survey has been made, but my own belief is that our supplies are sufficient in the area in which we are working now. As a matter of fact we are going again to take up the other lease.

President.—You don't think there is any question of insufficiency of timber in either place? Would it be of assistance if a survey is carried out in that area?

Mr. Joseph.—Yes.

President.—For instance there might be other kinds of trees besides Makai which may be of use for panelling.

Mr. Joseph.—Yes.

President.—Have you put in an application to Government?

Mr. Joseph.—Yes.

President.—Have you received orders on that?

Mr. Joseph.—At present there is no hope of their doing it.

President.—On the ground of expense.

Mr. Joseph.—When I speak of the Assam Government, I speak of the Forest Department. I have suggested to the Forest Department that a survey should be made.

President.—At present under your lease you pay 6 pies. Does that rise as time goes on?

Mr. Joseph.—Yes.

President.—When is the first rise to take place?

Mr. Joseph.—After 5 or 10 years.

President.—What is the amount of royalty?

Mr. Joseph.—It goes up to a maximum of As. 1-6.

President.—That is the maximum you have to pay.

Mr. Joseph.—Yes.

President.—Have you got a copy of the lease?

Mr. Joseph.—I have not brought it with me.

Dr. Matthai.—The lease that you are working now is the Lekhapani lease. That is a ten year lease.

Mr. Joseph.—Yes.

Dr. Matthai.—The Upper Dehing lease is a 30 year lease. Under the 30 year lease your royalty might go up to a maximum of As. 5 I believe in the 6th five year period; whereas under your Lekhapani lease the maximum would be As. 1-6.

Mr. Joseph.—I am not quite certain about the maximum of As. 5, I shall have to look it up again.

Dr. Matthai.—About the question of enumeration, have you ever seen the note by Mr. Pearson on Hollong?

Mr. Joseph.—I don't remember to have seen that. I have seen several of these Dehra Dun notes which deal with Hollong.

Dr. Matthai.—The point that I want to raise is this. That gives some kind of tentative estimate of the amount of Hollong available in certain areas. The name of the locality he mentions is the Western block of Upper Dehing Reserve. What Mr. Pearson says is that Mr. Jacob as Divisional Forest

Officer mentioned 2 trees per acre of over 7½ ft. or 11 trees of all girths. That is to say the total outturn that Mr. Pearson expects on the basis of these estimates for the Upper Dehing west block and east block together is 4,15,000 c. ft. of Hollong per year. Do you attach any particular value to this estimate?

Mr. Joseph.—No. There is only one small place where they made any kind of estimate and that was in the Upper Dehing west block.

Dr. Matthai.—If, for example, in considering the question whether there is a sufficient supply of suitable wood for your factory, supposing we went on the basis of this estimate, do you think from your experience of working this area, we might be far out?

Mr. Joseph. I think you might. There is much more Hollong and there is also this large quantity of Hollock too. We might go on with Hollock.

Dr. Matthai.—Do you think it would be necessary to get a proper enumeration made?

Mr. Joseph.—I think it is very desirable. I have always wanted it and I have pressed for that.

Dr. Matthai.—There is another suggestion made in this note. You showed us some ply wood made of Makai. The suggestion that Mr. Pearson makes is in these areas where Hollong grows it is often found mixed with Makai and it might considerably reduce the cost of extraction if the two kinds of trees were extracted together. Do you think that it is possible for you from the point of view of the veneer industry to make use of both Hollong and Makai in that way.

Mr. Joseph.—I think Mr. Adams will tell you that it is not a good practice to use two timbers in one box.

Dr. Matthai.—Why do you say that?

Mr. Joseph.—You have got different stresses.

Dr. Matthai.—If you have the face and the back of a box made of one tree and the centre ply of a different tree, the balance of stress is not affected.

Mr. Adams.—It is not a good practice. You will never find it in any ply wood industry.

Dr. Matthai.—It is approved by some authorities.

Mr. Adams.—I can only say it is not a good practice.

President.—From a commercial point of view would it not be possible to make a satisfactory tea box with two kinds of wood?

Mr. Joseph.—It is being done, but we don't.

Mr. Adams.—You gain no advantage in that. You have got a certain percentage in every log that is used, which is not good enough for face, back or front. What are you going to do with that?

Dr. Matthai.—That is not an important point. The really important point is this that if the centre ply is different, the quality of the ply wood is not affected.

Mr. Joseph.—Mr. Adams means that you don't get any economy, because instead of putting in the other kind of ply as the centre piece, he says he already has inferior pieces of the same kind of wood which has got to be used up somewhere.

Dr. Matthai.—It is really a question of economy.

Mr. Joseph.—Yes.

President.—Can you use Makai for face boards?

Mr. Joseph.—Yes.

Dr. Matthai.—At Murkong Selek they are making an experiment in mixed ply consisting of Simul as face and back ply and Hollock as centre ply. Your objection might apply equally to that.

Mr. Adams.—I strongly object to two or three kinds of wood in it. We get better results by using one class of wood.

Mr. Joseph.—I think that if we were hard up for Hollong and if we should use the other ply, then probably it would be more satisfactory to use all Hollong for full size chests and all Makai for small size chests. The real reason why we selected Hollong that it was of very little value for anything else at that time. Hollock is a valuable tree. However, I think Hollong is a good building timber, if it is properly seasoned. I have asked our Board to give us a couple of kilns for seasoning and I believe it would then be recognised as a valuable timber.

Dr. Matthai.—Not for the veneer industry?

Mr. Joseph.—No, for general purposes.

Dr. Matthai.—From the veneering point of view, how does Hollong compare with Hollock?

Mr. Joseph.—It is quite as good from the point of view of tea chests but from the point of view of panels it has not got quite as good a finish.

Dr. Matthai.—If you take loss in conversion?

Mr. Joseph.—The loss in conversion is small in Hollong.

Dr. Matthai.—The wastage might be smaller in Hollong than in Hollock.

Mr. Joseph.—Yes.

Dr. Matthai.—What about Makai?

Mr. Adams.—Makai is the same as Hollong.

Dr. Matthai.—Hollong is better in appearance, is it not?

Mr. Adams.—Makai is creamy white whereas Hollong is red, at least has a tendency to become red when exposed to air.

President.—Can you give us any estimate of the supply of Makai? Have you got an equal supply of Makai as Hollong?

Mr. Joseph.—I should say 'Yes' but not so accessible.

President.—And Hollock?

Mr. Joseph.—A very big supply and much more accessible.

President.—Could you give us an idea of Hollock in terms of tons which could be readily extracted?

Mr. Joseph.—Not off hand.

President.—Do you think that it would be possible for you to give us an estimate for all the three?

Mr. Joseph.—Yes.

President.—Of the three timbers, from the point of view of waste, Hollock is the worst.

Mr. Joseph.—Yes.

President.—Why?

Mr. Joseph.—Because it is less cylindrical.

Dr. Matthai.—Do you mean irregular shape?

Mr. Joseph.—Yes, and the branches are low.

President.—Before you rail your timber to the veneer mill, do you make any selection of trees fit for the veneering process?

Mr. Joseph.—Yes, we do.

President.—Who does the selection?

Mr. Joseph.—The timber supplier.

President.—He is your forest officer.

Mr. Joseph.—Yes.

President.—You select the trees with a view to their being cylindrical.

Mr. Joseph.—Yes, for the veneer mill.

President.—Even if you make a selection for veneering and thus restrict your supplies, you still think that you have got a good supply for any output which can be reached by you?

Mr. Joseph.—Yes.

Amount of timber required per tea chest.

President.—In your representation I think you told us that on the whole 1 c. ft. might be taken for a tea box, although you actually worked down so low as .75 c. ft.

Mr. Joseph.—Yes.

President.—What proportion is turned out as veneer and what percentage is shown as wastage? Let us take 1 c. ft.

Mr. Joseph.—I think I have given somewhere about .28 c. ft. for a full size box.

President.—That is to say, .72 c. ft. will include battens: .28 for ply wood, .10 for battens and .62 for the wastage.

Mr. Joseph.—Yes.

Mr. Adams.—In the veneer industry we take 66½ per cent. as obtainable from the log, 83½ per cent. we should consider as absolute loss. What we lose in the heart is not good for anything. It is useless for any purpose.

President.—What do you conclude from these figures?

Mr. Joseph.—At present they are high.

President.—Your average is .75 c. ft. to the tea chest.

Mr. Joseph.—That is so. I have taken one c. ft. because it is looking ahead and as we go further and get less good trees the wastage will increase.

President.—We should like to get an idea of the present practice. At present you are using .75 c. ft. of which .28 comes out as ply, .10 as battens and the balance .37 as the wastage, is that right?

Mr. Joseph.—Yes.

Mr. Adams.—We measure it with bark.

President.—Do you use Hollock?

Mr. Joseph.—Yes.

President.—What do you consider as your wastage?

Mr. Adams.—We have to reckon on 1 c. ft.

President.—That is to say, you would take one-third more of Hollock.

Mr. Joseph.—Yes. The Hollock trees do not grow as round as Hollong and Makai.

President.—There is no question of selection of Hollock.

Mr. Joseph.—There is. Where we have various uses for the timber we send the best to the veneer mill.

President.—The number of Hollock trees rejected would be considerable.

Mr. Adams.—Yes, they would all be bad shaped ones.

President.—What proportion would you have to reject?

Mr. Adams.—About 60 per cent.

President.—Would you have to reject 60 per cent.?

Mr. Adams.—Yes, of the logs. If you have another department, you can put them in there. In that case it does not affect you so much.

President.—Do you consider with reasonable selection you can get down to 1 c. ft. in the case of Hollock?

Mr. Joseph.—Yes.

President.—The selection would necessarily imply that you have got some other saw mills in which you can use the rejected.

Mr. Joseph.—Yes.

President.—You have got to select before you cut.

Mr. Joseph.—Yes.

Dr. Matthai.—When you increase your output from 40,000 to 3 lakhs, there would be less latitude for selection.

Mr. Joseph.—Yes

Dr. Matthai.—Therefore as you go on increasing your output, your wastage on Hollong might be greater than it is now.

Mr. Joseph.—Yes.

President.—Assuming that your output is 3 lakhs, would you still be able to make your selection to work out at 1 c. ft. per box in the case of Hollock?

Mr. Joseph.—I think so.

President.—Your figure of annas 5.53 per chest for timber, does it include railway freight?

Mr. Joseph.—Yes.

President.—What proportion does that come to?

Mr. Joseph.—It is Rs. 16 for a bogie timber truck from the timber depot to the mill, and for a small timber truck Rs. 8.

President.—What would that come to per box?

Mr. Joseph.—175 c. ft. is the measurement of what one small timber truck will hold.

President.—We will work on the small truck.

Mr. Joseph.—It is Rs. 8.

President.—It is equal to 175 boxes, and so roughly it comes to about 9 pies.

Mr. Joseph.—Yes.

President.—So that we could, if we were comparing this with a firm having its own tram line, reduce the figure by about 9 pies.

Mr. Joseph.—In 1925-26 the freight was less. I think we doubled it afterwards. We put it up to Rs. 8.

President.—One of the reasons for the increase is the increase in freight.

Mr. Joseph.—I think I am right in saying that.

President.—Is there any other reason for the increase in timber cost between 1925-26 and 1926-27.

Mr. Joseph.—I should think probably we had already picked out the best logs.

President.—There was more wastage in 1926-27.

Mr. Joseph.—Yes, more wastage in 1926-27 than in 1925-26.

President.—The question of wastage depends to a great extent on the skill of your workmen. For instance when you insert the log, if the chucks are not properly fixed, there will be more wastage.

Mr. Adams.—You can hardly take that into consideration because there is usually a man stationed there to watch that.

President.—I am talking of the timber being correctly cut to give you the biggest amount of veneer.

Mr. Adams.—That is quite a simple process.

President.—It does go wrong sometimes.

Mr. Adams.—Yes. There are plenty of occasions when the heart is not in the centre, and the heart is no good for our purpose.

President.—The chuck has to be in the centre of the heart?

Mr. Adams.—It should be.

Dr. Matthai.—In a normal tree the heart ought to be in the centre?

Mr. Adams.—It is not always. You get a bigger growth on the southern side of a tree than on the north.

Dr. Matthai.—If there is a good deal of difference amongst trees as to the position of the heart it would require a lot of skill on the part of the man who works the machine to fix it in such a way as to avoid waste?

Mr. Adams.—Not to a great extent.

President.—Did you have any particular difficulty in training your people; when you started your factory did you have considerable amount of waste on this account?

Mr. Adams.—No: either I myself or my son was there.

Mr. Joseph.—Mr. Adams was used to American and European labour and he came up to Assam and got all these men together who had never seen a machine before and had to train them so it was rather a difficult process.

President.—Another cause of waste, I suppose, would be the cutting of your boards to excessive sizes, that is to say leaving a larger margin for trimming. Is it done deliberately?

Mr. Adams.—We have got to allow for shrinkage.

President.—Even so we were told by the Assam Saw Mills and Timber Company the other day that they have found it possible in the last three years to reduce the sizes of the margin.

Mr. Adams.—My margin is 2". If I want to finish 20" in width I have got to take a board 22" in width in the grain. There is a grain shrinkage and then there is the margin afterwards for trimming.

President.—Do you give instructions as to the exact size they are to be cut to?

Mr. Adams.—Yes.

President.—Do they observe the instructions?

Mr. Adams.—Yes. There are marks on the table to show that. There is not much wastage in that respect because they know if they do that kind of thing they will get fined or dismissed.

President.—What other reasons are there for excessive wastage?

Mr. Adams.—There is a certain amount of wastage during delivery. You have got a pile of panel boards on a truck; it is impossible to pile all these boards symmetrically. When they are put into the trucks they get zig zag. There is only a certain amount of margin left for trimming; you get a pressure between the boards and they get damaged. Great care is wanted to put them on the trucks.

President.—It makes no difference whether it is cold process or hot process?

Mr. Adams.—That applies both to hot and cold processes.

President.—Is there any other source of wastage?

Mr. Adams.—People steal them for firewood.

Mr. Joseph.—I don't think that amounts to a great deal.

President.—The Assam Saw Mills and Timber Company take an average of 1.20 c. ft. per box; would you consider that excessive?

Mr. Adams.—I should, for our timber.

President.—Would you consider it would be excessive for Hollock?

Mr. Joseph.—Mr. Adams has not seen Murkong Selek.

Mr. Adams.—I saw their works manager and speaking on the question of wastage he told me that there was considerably more waste in his works.

Dr. Matthai.—What is your experience about other countries? What is the wastage in birch?

Mr. Adams.—Almost as much as in Hollock.

Dr. Matthai.—In a good factory in Finland or elsewhere what would be the normal wastage in birch wood?

Mr. Adams.—28 to 30 per cent.

Price of birch wood.

President.—Do you know the price of birch wood?

Mr. Adams.—I was home last year; birch was costing 3s. 6d. and 4 shillings at the factory per c. ft. in logs.

Dr. Matthai.—How long ago was this?

Mr. Adams.—March 1926.

Dr. Matthai.—Where exactly was it?

Mr. Adams.—In London. The ply wood which comes over here in the form of tea chests is not made in England.

President.—Would that make very much difference in price because if you can sell your birch logs at 4 shillings per cubic foot you are going to sell your ply wood at somewhere about the same price.

Mr. Adams.—The birch when it comes to England is made into a high class finished goods.

Dr. Matthai.—Of the factories in England how many make ply wood?

Mr. Adams.—I think not even one, but I won't like to swear.

Dr. Matthai.—What about Acme?

Mr. Adams.—I don't think they do it at all.

Dr. Matthai.—When were you in Russia?

Mr. Adams.—In 1912.

Dr. Matthai.—In what part of Russia.

Mr. Adams.—In Vladivostok.

Dr. Matthai.—What was the condition of the ply wood industry at that time?

Mr. Adams.—At that time it was very good. As a matter of fact I went to a mill belonging to Messrs. Skidelskye.

President.—Could you give us any idea of the price in England of birch or alder logs for the manufacture of ply wood for tea chests.

Mr. Adams.—I cannot tell you. It is quite possible they make tea chests from logs rejected for furniture, because the freight charges on logs are enormous.

President.—Could you suggest any method by which we can ascertain what the cost of birch or alder is at factories at home?

Mr. Adams.—You can cable to Messrs. Arthur Wright or Veneers Limited, London, and get the information.

President.—They might refuse to give it to us. Will you please get the information for us?

Mr. Adams.—Yes.

Dr. Matthai.—There is one price apparently for the sort of birch wood required for furniture and another price for birch wood suitable for tea chests. We want the price for one which is comparable to the wood used for tea chests in India.

Mr. Joseph.—We will give you that.

Dr. Matthai.—Could you get the Stockholm price?

Mr. Adams.—Yes.

Dr. Matthai.—Could you get us the price for Helsingfors?

Mr. Adams.—That would be the same I think. We can ask for both, f.o.b. Stockholm and Helsingfors.

President.—The royalty you pay is 6 pils per cubic foot?

Mr. Joseph.—Yes.

President.—Could you give us some idea of the distribution of the cost for felling, dragging and so on?

Mr. Joseph.—I will send it to you; I cannot give it to you off-hand.

President.—If you could send them in, we should be very much obliged.

Hollong.

Dr. Matthai.—Just a point about Hollong. Hollong was not a reserved timber till very recently.

Mr. Joseph.—No, it was not a reserved timber. There was rather a different point in this. The Upper Dehing lease is a reserved forest and therefore every tree in that is a reserved timber. Our Lekhapani lease is not a reserved forest and Hollong was not a reserved timber either; but it is of no practical importance, because there is no restriction in the Lekhapani forest. We can fell any tree of any girth and of any kind.

Dr. Matthai.—On the other hand in your Lekhapani lease if you wanted to take firewood from your reserve, it would not be the usual royalty of 6 copies but a separate royalty fixed for unclassified areas.

Mr. Joseph.—The whole of Lekhapani is an unclassified area.

Dr. Matthai.—If Hollong were an unreserved tree and if it occurred in your Lekhapani area, the royalty that it would bear is the same royalty for example as firewood there, because it would be the rate applicable to unclassified trees. The moment it is reserved it might bear a different rate?

Mr. Joseph.—I don't think so. In the Lekhapani lease no question arises of reserved and unreserved trees. The whole of it is an unclassified area in which we are entitled to extract any timber at 6 pies in the log or any small stuff for firewood. Having felled the trees they measure the logs. The royalty on these is 6 pies per c. ft. Then if we use the tops and branches and things of that sort which will not be measured in the log for firewood, we pay the usual firewood rate.

President.—That is in the reserved forest.

Mr. Joseph.—In either forest.

Dr. Matthai.—The fact that it has been reserved makes no difference at all.

Mr. Joseph.—It makes no difference.

President.—Do you have to pay for branches of a tree which you have felled, if you use them for fuel?

Mr. Joseph.—Yes, if we want to use it as firewood, we do pay.

President.—Is that one of the terms of your lease?

Mr. Joseph.—We fell the tree and the top is cut off. The log is sized up and then it is measured and the royalty assessed. The rest is not removed and not paid for. But if we extract and use it for firewood, we then pay firewood rate for that.

President.—What is the rate?

Mr. Joseph.—I have forgotten what it is. I can get it for you.

President.—The Assam Saw Mills use wood largely as fuel.

Mr. Adams.—They have to pay royalty on the fuel then.

President.—It would probably be less than that charged for logs.

Mr. Adams.—I think so.

Dr. Matthai.—It would be the same rate in your case as in the case of Murkong Selek.

Mr. Adams.—I think so.

Dr. Matthai.—As far as extraction is concerned, is labour more difficult to get in your area than in the North East Frontier area.

Mr. Adams.—I believe it is.

Mr. Joseph.—It is a less populated country, I think, and there is a greater demand for timber from tea gardens.

Dr. Matthai.—Is it a more difficult country to work?

Mr. Joseph.—I don't know their country. But a great deal of ours is a very difficult country to work. It is intersected with nullahs extending over many square miles and when you get off these you get to the sides of the hills.

Dr. Matthai.—Hollong is more resinous than hollock.

Mr. Joseph.—I think it is.

Dr. Matthai.—How does that affect ply wood?

Mr. Joseph.—Provided it is boiled it makes no difference.

President.—It requires more boiling before you put it on to the machine.

Mr. Joseph.—Yes.

President.—Has any complaint ever been made about your tea chests on the ground that the wood is more resinous?

Mr. Adams.—We had one letter from London. I don't know whether it was quite in the nature of a complaint. The Secretary said he did not know for certain, but suggested we might be using it too green.

Mr. Joseph.—I investigated the question. The Hollong has a faint cedary smell which gets stronger if you keep the boxes in a close place. Some gardens have been frightened of it but the smell goes off if the boxes are aired and we have never had the slightest complaint from the different brokers who have examined them.

President.—Has there been any complaint?

Mr. Joseph.—Thousands of boxes have gone home. The answer I have given to the tea gardens is that if you ventilate your boxes and don't keep them in a closed space, you will find that the smell has gone.

Mr. Adams.—If you keep the birch wood boxes in the same way, there will be a curious sort of smell.

Dr. Matthai.—Is Hollong lighter wood than Hollock?

Mr. Joseph.—Yes, Hollock is heavier.

Dr. Matthai.—Is your wood softer?

Mr. Joseph.—Hollong is softer than Hollock.

Mr. Adams.—It is easier to cut. Hollong runs straight, but Hollock has a curious and snarly way of growing.

Dr. Matthai.—In the case of Hollong, you get more straight grain.

Mr. Joseph.—Yes.

Dr. Matthai.—Therefore on that account there is less wastage in Hollong than in the case of Hollock.

Mr. Joseph.—Yes.

Battens.

Dr. Matthai.—On this question of battens I understand that the Assam Saw Mills don't quite use as many battens as you do.

Mr. Joseph.—We have got 4 corner pieces and two sets of battens, i.e., 12 pieces in all. They only use top and bottom frames. Therefore they only have 8 pieces against our 12.

Dr. Matthai.—They have only 3rds of what you have.

Mr. Joseph.—Yes.

Dr. Matthai.—What is your opinion about this difference in the arrangement of battens?

Mr. Adams.—If you are going to make the chests strong to stand the knocking about you have got to have these corner pieces.

Dr. Matthai.—Is it really necessary?

Mr. Adams.—I consider it is necessary.

Dr. Matthai.—You make it extra strong, unnecessarily strong.

Mr. Joseph.—If you don't use corner pieces, you will have to use clamps or clips.

Mr. Adams.—I don't think you can get away from that.

Dr. Matthai.—What about these imported boxes? Do they contain corner pieces?

Mr. Adams.—Not all of them. Some of the cheaper boxes do not contain so many.

Dr. Matthai.—Which do you mean? For instance take the Luralda boxes.

Mr. Adams.—They have only 8 battens. Hercules have only 8 battens. There is another kind of box called Ajax which has only got 8 corner pieces.

Dr. Matthai.—The number of battens has something to do with the sort of lining that you provide. What I mean is if you have separate pieces for each panel, you ought to have all your 12 battens.

Mr. Joseph.—You can cut your linings either way. If you are going to use corner pieces, you must cut your linings into panel sizes. But if you don't use corner pieces, you could use continuous sheets right round.

Dr. Matthai.—If you were able to have a continuous aluminium sheet, in that case is it quite necessary to have all the 12 battens?

Mr. Joseph.—I think so. The determining factor is this. If you are going in for rigid boxes with the triangular corner pieces and with the sides of the boxes nailed on to them, you must cut your linings to the sizes of the panels. But if you are going in for a less rigid box without the corner pieces, but the sides held together by metal clamps, then you could afford to take continuous sheets, because there is nothing in the way of folding them round.

Dr. Matthai.—Would a box with clamps be less expensive?

Mr. Joseph.—I don't think so.

President.—The corner piece is inside the lining.

Mr. Joseph.—Yes.

Dr. Matthai.—How far is the high cost that you incur in the manufacture of an Indian tea chest due to the fact that you are making your tea chest unnecessarily efficient?

Mr. Joseph.—It is a question which you think makes the better box. So far all our customers have preferred one with the triangular corner pieces. The addition of cost to that must be very small. We said that the total lot of corner pieces was $\frac{1}{16}$ th of a c. ft. If we take out these corner pieces, it would be a third of that.

President.— $\frac{1}{16}$ th of a c. ft. was for corner pieces with battens.

Mr. Joseph.—Corner pieces alone would be about .03.

Dr. Matthai.—It is not a reduction to be despised. Battens together constitute a 4th of the actual wood content of a box. If you take .1 as the c. ft. wood content and .3 it is about $\frac{1}{4}$ th of the total wood content.

Mr. Joseph.—Yes, the wood content would be reduced by $\frac{1}{4}$ th or a third of a $\frac{1}{4}$ th. I do not know what the set off against that would be in the extra cost of bifurcating rivets against nails, but most of the imported boxes have corner pieces.

Mr. Adams.—All the high class makers have got it.

Dr. Matthai.—The Aemes have invariably got it.

Mr. Joseph.—Yes and the Venestas. They are the biggest people. You have probably never seen the loading of tea chests in river steamers. There the tea chest is lifted by the cooly on his head and is flung down in the hold below.

Future timber costs.

Dr. Matthai.—If you are trying to take a long view, say, about 10 years from now, do you expect your timber cost per box to go up?

Mr. Joseph.—Yes, I do.

Dr. Matthai.—If you are asked to give an approximate estimate as the average for 7 or 8 years?

Mr. Joseph.—I think it will go up to As. 6 $\frac{1}{2}$.

Dr. Matthai.—You are working at present in the nearer area.

Mr. Joseph.—Yes, we are working the most accessible timber.

Dr. Matthai.—The further you go the more your costs will go up.

Mr. Joseph.—On the other hand I expect to make reductions elsewhere. The cost of timber will go up, but there again we hope to improve the method of extraction.

President.—In any case it will go up on account of the lease.

Mr. Joseph.—Yes.

President.—Do you think that including the extra cost of one anna royalty, it might go up to As. 7?

Mr. Joseph.—Yes.

Stores and packing.

President.—There is only one small item—sundry stores and packing which is .85. That is a very low figure as compared with the Assam Saw Mills. That is low because you supply to gardens close to your factory.

Mr. Joseph.—Our packing is very cheap.

President.—Is there any reason for that being so low?

Mr. Joseph.—Because we are not sending it over long distances.

President.—If you send it to any distance you pack it in boxes.

Mr. Adams.—We use some of the waste ply wood and put a steel band round it.

President.—Do your customers accept that?

Mr. Adams.—So far they have.

President.—It would be very much cheaper than sending them in boxes.

Mr. Adams.—Yes.

President.—Some of their customers are at a distance. It doesn't matter to you whether they are close by or far off.

Mr. Joseph.—They are in a difficult position. They cannot send their boxes direct by rail. They have transshipment.

President.—For that purpose if they were wrapped in waste ply wood, would that be sufficient packing for the Assam Saw Mills?

Mr. Joseph.—I don't know.

Mr. Adams.—We have also sent chests down on the Bengal Doonars Railway. I simply put waste veneers round the panels for long distances and over that we put steel bands.

President.—Those are the steel strips.

Mr. Adams.—Yes.

President.—Do you find that quite satisfactory?

Mr. Adams.—Yes.

President.—That would of course be very much cheaper.

Mr. Joseph.—Quite.

Mr. Adams.—Only one consignment of ours got broken and one got lost.

President.—Do you find that system of packing satisfactory even for long distances?

Mr. Joseph.—Yes, it is the metre gauge right through. The wagons are taken across the river by the ferry steamer.

President.—It is worth experimenting.

Mr. Joseph.—Yes.

President.—They must have a lot of waste ply wood.

Mr. Joseph.—Yes.

Dr. Matthai.—The aluminium lining is cheaper than English lead lining.

Mr. Joseph.—Yes. That is why partly we switched on to aluminium. At the present moment it is not cheaper than Indian made lining produced by the Kamarhatti mills.

Dr. Matthai.—There is a difference of 2d. In point of quality how do the two things compare?

Mr. Joseph.—Some people prefer lead and some people prefer aluminium.

Dr. Matthai.—What is the reason?

Mr. Joseph.—I have heard one man who likes lead lining, say that because there are pin holes, air gets into the tea and keeps it in good

condition, and another man may say that even if a little bit of air gets through, it will spoil the tea.

Dr. Matthai.—Is there any proposal to make aluminium sheets locally?

Mr. Joseph.—I don't think so. I have got some quotations for lead from the Kamarhatti mills and I have asked the Manager to look into it.

Dr. Matthai.—As far as you are concerned, the only ground on which you turned to aluminium was price.

Mr. Joseph.—I am not sure. I rather fancy so. I do not know the history of that point.

President.—Have you had any trouble because of the aluminium lining?

Mr. Joseph.—I must admit that all planters who have seen our products say that our boxes are exceedingly good. They are perfectly willing to take them.

Opium Chests.

President.—You were asked last year by the Indian Stores Department to tender for opium chests.

Mr. Joseph.—We were asked by the Hardware Department of the Indian Stores Department to submit tenders for Venesta Opium chests.

President.—For how many?

Mr. Joseph.—Obviously nobody could tender for Venesta chests except the Venesta Company. They probably meant veneer chests. We found that we could not tender for them to the Indian Stores Department. This common use of the word "Venesta" for veneer is detrimental to other manufacturers, besides being very ignorant. I think they asked for 3,700 5-ply and 1,500 3-ply chests.

President.—What were the difficulties you found about the specification?

Mr. Joseph.—The difficulties were these. They asked for nails that are not obtainable. They limited us to 1½". We never use nor can we get that size. I think nobody does except the Venesta Company, and they probably make them. It is not a nail that we could get. They did not give us any margin, that was one difficulty. Another difficulty was about the corner strips which had to be of a particular size and of a particular kind that we could get no quotation for.

President.—Could they not be had locally, these tin strips?

Mr. Joseph.—We could not obtain them in India. They would have to be specially made and would not be made for a small order. What they should have said is galvanized iron strips which are quite as good as tin.

President.—You could get galvanized iron strips.

Mr. Joseph.—We could get them in Calcutta. First of all we tried to buy the tin strips here but we could not get them. After that we cabled home to get quotations. I did not get the answer in time. I then wired to the Indian Stores Department and asked whether they would extend the time for tendering and they said no, but said that they would accept a telegraphic tender. I did not get the reply from home in time and so I did not tender.

President.—Were there any other difficulties in the specifications?

Mr. Joseph.—No.

President.—How many square feet of 5-ply wood are there in an opium chest?

Mr. Joseph.—I think that 26 ft. of 5-ply wood would be required.

President.—As regards 3-ply boards, how many square feet would there be in an opium chest?

Mr. Joseph.—13.5 sq. ft.

President.—What are the actual measurements of opium chests, 5-ply and 3-ply?

Mr. Adams.—34½" in length. 25½" in width. 13" in girth. That is 5-ply.

Dr. Matthai.—These are different from the dimensions that you give in your replies to the questionnaire.

Mr. Adams.—Those are outside measurements.

President.—The dimensions that you gave just now are inside measurements.

Mr. Adams.—Yes. In making a box you take outside measurements. Now as regards 3-ply:—25½" long. 21½" in wide. 8" in girth.

President.—The costs which you have given for the 5-ply boards do not seem to me to include every item. For instance, packing has been omitted.

Mr. Adams.—We should have to send them exactly in the same way as we send tea chests. We have to make them into bundles.

President.—That does not seem to be included in these costs. There are only five items.

Mr. Adams.—There is no other.

President.—Can you give us an estimate for packing? You have to send these to Ghazipur.

Dr. Matthai.—Could we use the same figure for opium chests?

Mr. Joseph.—No.

President.—It will have to be a little more.

Mr. Joseph.—Instead of .85, you might take it as 1 anna.

President.—What about your administrative charges? Supposing you were turning out all opium chests and nothing else, what would be your administrative charges? You can tell us how many opium chests you can turn out and what your charges under administration are and dividing one by the other, we can find out the supervision charges.

Mr. Joseph. Taking 3,900,000 sq. ft. of 3-ply boards given in reply to question 4 as being our present possible output, the quantity of 5-ply boards would be about 23½ lakhs of sq. ft.

President.—Take it as a lakh of opium chests. Now, could you give us the total cost of administration last year?

Mr. Joseph.—The total came to Rs. 22,549—that includes home and India.

President.—Roughly 3½ annas has to be added to the opium chests and one anna for packing; that would make it 59 annas or Rs. 3-11-0. That would be f.o.r. for 5-ply chests.

Mr. Joseph.—Yes.

Mr. Adams.—You have got no fittings in that.

President.—Are there any linings in opium chests?

Mr. Adams.—No. On the large chests there are 12 internal fittings.

President.—Are you speaking of wooden fittings?

Mr. Adams.—Yes, then there are corner pieces and battens all round.

President.—That is how much per box?

Mr. Adams.—We have not got any quotations. Tea fittings cost 4 annas for the large box.

President.—That includes tin fittings?

Mr. Adams.—No. Then you have got the straps and the nails.

President.—The whole of your fittings for 19"×19"×24" box comes to 5½ annas.

Mr. Adams.—That is theterne plates. In large opium chests we have got little idea of what the fittings will cost.

President.—Could you give us an estimate?

Mr. Joseph.—I have not the faintest idea of what the prices would be because we would not got quotations.

President.—You cannot say whether they would be, say, 7 annas or 8 annas?

Mr. Joseph.—No. I finally got a quotation for the total quantity that we wanted for this contract.

President.—Now for the sake of argument, we will take a figure something in excess of what we took for fittings for tea chests. Supposing we take a figure of 8 annas that ought to allow for a margin?

Mr. Adams.—Yes.

President.—That would bring your opium chests up to Rs. 4-6-0. Have you any idea of what the successful tender for these chests will be?

Mr. Adams.—Between Rs. 7 and 8.

President.—So that if the Opium Department were to consult the tea chest industry in India and draw up its specifications to suit the Indian tea chest industry, would there be any difficulty in your securing contracts for these?

Mr. Adams.—I don't think so.

President.—The same would apply to 3-ply chests too?

Mr. Adams.—Yes.

Mr. Joseph.—You suggested that the cost of our fittings for tea chests is 5½ annas so that 8 annas would be a fair figure for fittings for opium chests. It is more than a fair figure. The actual linear measurement of the fittings in a tea chest 19"×19"×24" is 248" and in an opium chest 300", so that 8 annas is certainly a full figure.

President.—So that it would appear that the assistance that you would require in regard to opium chests is that the Indian Stores Department who are responsible for the specifications should be advised to consult the Indian Industry before drawing up that specification and as far as possible to make their specification such as, without sacrificing the strength of the boxes in any way, would suit the Indian industry.

Mr. Adams.—That is what we want.

Dr. Matthai.—Could you give us a statement, looking at the notice calling for tenders, as to what are the minimum alterations you would require in those specifications to make it possible for you to tender?

Mr. Joseph.—Yes.

President.—You sell most of your chests on your own line.

Mr. Joseph.—Yes. Primarily we sell to our own and associated companies.

President.—Of course if you increase your output you will have to go further afield?

Mr. Joseph.—After all our line taps one of the richest and best parts of the tea garden area—the whole of the Doom Dooma district.

Freight from Margherita.

President.—Could we take these freight rates of 8 pies for full size and 5 pies for half size chests as fairly constant for our calculations?

Mr. Joseph.—We have sent a lot down the Assam-Bengal Railway.

President.—Could you give us the average figure of freight for these chests?

Mr. Joseph.—It is very difficult to give an accurate figure. I have said that our railway taps one of the richest parts of the tea garden area but it does not necessarily follow that these will be the gardens that will give us orders. A great number of gardens in this area would not give us orders; they are served by the Planters' Stores and Agency Company who are the agents for the Hercules boxes. Our freight to Pandu is 2 annas 10 pies, to Sylhet annas 4.

President.—What we were suggesting to the Assam Saw Mills and Timber Company yesterday was—they have got six districts which form the main market for their tea chests—Dibrugarh, Tinsukia, Tezpor, Sylhet, the Dooars, and Darjeeling.

Mr. Joseph.—To Sylhet our rate is 4 annas, for the Dooars within 6 annas. Tezpor would not be so much, we can get across by river, Tinsukia and Dibrugarh would be about 8 pies.

President.—And Darjeeling?

Mr. Joseph.—We have not got a quotation. To Tezpor they go up by river steamers; I do not know what the freight would work out to but I think it would be about 1½ to 2 annas.

President.—Your freights to these markets will be considerably lower than that of Assam Saws?

Mr. Joseph.—Yes.

President.—You have said your freight to Sylhet will be 4 annas. What about the Dooars?

Mr. Joseph.—Ours is 5 annas.

President.—They say Dibrugarh 1 anna 11 pies.

Mr. Joseph.—Ours is 8 pies.

President.—Tinsukia 3 annas 4 pies.

Mr. Joseph.—Ours is 8 pies.

President.—Tezpor 3 annas 3 pies.

Mr. Joseph.—Ours is below that.

President.—Sylhet 5 annas 5 pies.

Mr. Joseph.—Ours is 4 annas.

President.—The Dooars 6 annas 6 pies.

Mr. Joseph.—Ours is 6 annas.

President.—Darjeeling 7 annas 9 pies.

Mr. Joseph.—Ours will be about the same.

President.—On the whole you have some slight advantage so that any calculations we made as regards the relative position in regard to the freight on the Assam Saw Mills and imported boxes would certainly not be unfavourable to you. What we were suggesting to them yesterday was that we should take these six districts and ascertain the production of tea for each of the districts and translate that into terms of tea chests by dividing by 100 lbs. and then take the weighted average freight in accordance with the number of tea chests in each district so as to arrive at the freight for one single chest both for the imported box and the Indian manufactured box.

Mr. Joseph.—When you say not unfavourable to us, you may find their rates so high that they may not be able to compete with the imported box, but ours being lower we might be able to compete; but in any case our freights will not exceed the figures you take for them.

Dr. Matthai.—What is the figure 'railway freight' in your cost sheets (item V). Have you sent us the details separately?

Mr. Joseph.—The railway freight charge is to some extent freight paid by us on some of the consignments where we are quoting f.o.r. at some destination. The price quoted sometimes includes railway freight. In order to try and get a market on these trial orders which we quoted we paid the freight and delivered at a distant market at the same rate as we were selling locally. That is included, but so is the upward freight on machinery imported. That is true about accounts, but I am not sure about the cost sheets.

Dr. Matthai.—That is to say it includes partly the freight on your machinery.

Mr. Joseph.—Probably not the machinery. That has gone to the capital account; but it includes freight on things like glue and fittings.

Dr. Matthai.—On stores.

Mr. Joseph.—Yes.

Mr. Joseph.—Yes. I will give you the details for Rs. 16,523.

	Rs.
The charge against Saw Mills for medical plus hospital	3,777
Brick Works, etc., etc.	5,517
Veneer Mills, etc., etc.	9,323
TOTAL	18,617

When compared with Rs. 16,523, there must be another Rs. 2,000 out of medical. That is roughly the proportion in which they are divided.

Dr. Matthai.—The Veneer Mill employs the largest labour force of those three mills.

Mr. Joseph.—It is larger in the brick works.

Dr. Matthai.—Why is the allotment for the veneer mill so much higher?

Mr. Joseph.—Because the brick works is working only for a few months.

Dr. Matthai.—These prices that you have given in answer to question 25 are f.o.r. works plus freight. Take for example the latest price for a full size box which is Rs. 3-10-0.

Mr. Joseph.—That is the price at which we sell, but in certain cases we have paid the whole or part of the freight.

Dr. Matthai.—Do I understand that Rs. 3-10-0 is the price actually secured at the works, or does it also include freight to destination?

Mr. Joseph.—It includes the whole or a part of the freight to the destination. Sometimes we have to pay the freight up to Pandu which comes to about As. 2-10.

President.—Could you give us your net price?

Mr. Joseph.—Rs. 3-7-2.

President.—Could you give us a revised table?

Mr. Joseph.—Yes, we could give you the details of prices charged to each company.

Dumping.

President.—In paragraph 4 of your supplementary application you deal with the question of dumping. You say "As far as can be ascertained there has been no decrease in the price of linings and fittings to account for this drop of 14 annas in the general market price nor does there appear to have been any corresponding drop in the price of imported ply boards other than tea chests or in that of imported articles made from ply wood." This latter part of your statement is contested by the Indian Tea Association. They say that they have figures to prove that there was a corresponding drop in the price of ordinary ply wood. They say "In this connection, it might perhaps be useful to point out here that in paragraph 4 of their letter, dated 14th June 1927 to the Tariff Board, the Assam Railways and Trading Company, Limited, Margherita allege that the price of the imported tea chest has been cut in order to drive the Indian industry off the market as "there does not appear to have been any corresponding drop in the price of imported ply boards other than tea chests or in that of imported articles made from ply wood. This statement is incorrect as the Indian Tea Association can produce clear evidence that in 1926, the year in which the largest reduction in the price of the imported tea chest took place, the price of ply wood boards was also correspondingly reduced."

Mr. Joseph.—I did not know that.

President.—Of course we have asked them to produce figures. Now as regards fittings there has been no corresponding drop in the price of fittings.

Mr. Joseph.—No.

President.—We have not got very much information as regards prices of fittings separately from tea boxes.

Mr. Joseph.—I don't say that there has been no drop. I only say that there has been no corresponding drop. I can send you copies of invoices in support of this statement.

President.—It would be very useful if you could give us figures in support of this contention.

Mr. Joseph.—I can give you invoices for linings and terne plates.

President.—That would be useful.

Mr. Joseph.—Yes.

Mr. Adams.—There has been an increase under the head nails?

President.—On the question of dumping, I suppose you would agree that there may be other reasons besides the desire to kill the Indian industry for the reduction of prices.

Mr. Joseph.—There may be.

President.—We have received some information from Messrs. Bird & Co. as regards the ply wood factories in Finland. It appears from that that there has been a very large increase in the size of factories the more recent factories turning out double as much ply wood as the old ones. That might reasonably account for the cheapness.

Mr. Joseph.—Yes.

President.—And then an association of ply wood makers in Finland has been formed.

Mr. Joseph.—That would be more likely to increase the price to the foreign consumer than to decrease it; the usual result of a combination, whatever the trade might say, is not to cheapen the price of the product to the consumer.

President.—We have not got much information about the Association in Finland. As regards the other possible reason for the reduction of prices, have you any information as to whether it would be a correct supposition that the manufacturers of ply board find it desirable to charge very low prices for tea chests because they command an increasing market for their ply board for panels for furniture and other things? I understand that the market for ply board for other purposes than tea chests has expanded very largely. Consequently it is possible that if they find a remunerative market in other directions for a portion of their output, they may find it desirable to place their production of rather inferior boards in the form of tea chests at low prices.

Mr. Joseph.—It would be interesting as a check on that to know whether the Hercules makers make anything but tea boxes.

President.—We will try and ascertain.

Dr. Matthai.—The Acme people do.

Mr. Joseph.—Also Venesta's.

Dr. Matthai.—How do their prices compare? Are their prices also at about the same level?

Mr. Joseph.—Yes. In January 1926 the Luralda quotation worked out to about Rs. 3-13-5, Acme Rs. 4-4-0 to Rs. 3-15-0, Venesta Rs. 4-3-0 to Rs. 3-14-0, Hercules Rs. 4-8-0 to Rs. 4-0-0. The general level was Rs. 4.

Dr. Matthai.—I suppose Acme and Venesta account for the bulk of the imports into India?

Mr. Joseph.—Yes.

Dr. Matthai.—If they command the bulk of the imports any price that they fix would more or less govern the market, would it not?

Mr. Joseph.—Yes.

President.—There is another point. Mr. Adams was saying before lunch that the superior birch wood which is used for furniture is very expensive.

These ply wood factories in Finland, Norway and other places may be able to sell the superior birch wood at a higher price.

Mr. Adams.—They would use the second quality for tea chests and select the best logs for superior work.

President.—And it might be worth while to put the other products on the market more cheaply?

Mr. Adams.—Exactly.

President.—As regards the import price at what period of the year do you think it would be fair to take the import price of chests? I suppose prices vary during different periods of the year and to different customers?

Mr. Joseph.—Just about now is the time for them to quote their prices for the coming season.

President.—If now in August a garden was to order chests, it might be a supplementary order or a small order for which it would have to pay a higher price, would he not?

Mr. Joseph.—Possibly.

President.—Would December to March be a reasonable time to take?

Mr. Joseph.—I should say from end of November.

President.—Supposing we took November, December and January prices we should probably find for those three months prices for the season would probably be lower than the prices the Customs Department give us. Prices during the period last December to February might be lower than the present price?

Mr. Joseph.—That is quite possible.

President.—That would be the best period to take?

Mr. Joseph.—I should think so.

President.—From which company do you consider the competition most keen?

Mr. Joseph.—I should take the three most important ones—Acme, Venesta and Hercules. I should like to take Luralda too.

President.—If we take all the prices available for those types of chests which we have obtained from the Customs Department for these 3 months and take the average, correcting it if necessary by a comparison with your actual realized prices, and with the Assam Saws actual realized prices and make allowance for any reduction regarding which you produce evidence, would you regard that as a satisfactory figure?

Mr. Joseph.—I should think so.

Methods of helping the Indian Industry.

President.—Then there are various suggestions of yours as to the method in which you should be helped, and one minor suggestion is that the duty on the ingredients of glue should be taken off. What are roughly the main ingredients in this glue?

Mr. Adams.—Casein, caustic soda, sodium chloride and soda ash.

President.—As regards casein which is the main ingredient is that exported from this country?

Mr. Joseph.—Yes.

President.—You purchase casein in this country.

Mr. Joseph.—Yes, what we can get.

President.—If we remove the duty where can you get it from?

Mr. Joseph.—We can get it from Holland. When the Indian company suddenly tells us that the price has gone up by, say, 5 rupees, a cwt. we get it from Holland.

President.—This casein which is used for glue is used also for a number of other purposes; it is used for sizing by cotton mills and in other trades

so that it is rather difficult to remove the duty only on casein used in the manufacture of tea chests. The point may possibly come before Government in connection with the Textile Tariff Board's report, so that possibly Government's decision on that point will decide this matter which you draw our attention to.

Mr. Joseph.—Yes.

President.—What are the other ingredients of glue?

Mr. Joseph.—Sodium chloride and caustic soda.

President.—Caustic soda is used in many other trades, and sodium chloride?

Mr. Adams.—That is used for paper manufacture.

President.—We have recently received a communication from the Government of India that the removal of duty in favour of one particular industry is not in accordance with Government's policy.

Dr. Matthai.—What relief would you actually expect supposing the duty on casein was removed?

Mr. Joseph.—I have given you the figure on the ingredients of glue.

Dr. Matthai.—How much actually is the estimated relief on casein alone?

Mr. Joseph.—It would add about 10 pies per box on the ingredients of glue.

Dr. Matthai.—I think 10 pies is an over-estimate.

Mr. Joseph.—Our figure for glue per box is annas 6.5, 15 per cent. of that.

Dr. Matthai.—You cannot take the whole of that. That is the cost of glue as it is finally made.

President.—Your application is for a bounty of a certain rate for a period of 10 years. What is the particular reason for fixing the period at 10 years?

Mr. Joseph.—I cannot say that 10 years is right or 7 years or 8 years is wrong, but I feel that 10 years would enable us to get a footing in the market.

President.—The impression that was created in our mind from the application of Messrs. Bird & Co. was that their object was to break the conspiracy, as they suggest to us, on the part of the manufacturers in Europe to destroy the Indian industry and certainly my impression was that they thought if this bounty or duty—whatever it might be—was granted for three or four years, the importers would realize that the Government out here do not intend the Indian industry being smashed. Is there any particular reason for a 10-year period.

Mr. Joseph.—No.

President.—You propose a bounty of 9 annas in addition to the import duty. The Assam Saw Mills and Timber Company placed it at 4 annas. You consider that as an underestimate?

Mr. Joseph.—I do. Originally of course they proposed an amount of relief at Re. 1-8-0 or even more. I saw their draft before it went through and I argued the point with them. I think their idea was that it was no good asking for more than 4 annas. My view was that Government was out to protect us 4 annas would not be enough.

President.—If the drawback is allowed with the present duty, 13½ annas on tea chests would be necessary. That assumes that the full rebate will be granted.

Mr. Joseph.—I worked out that the rebate is worth to them something like 4 annas a box.

President.—Your proposals for a bounty presents certain difficulties. We put them before the Assam Saw Mills the other day. If a bounty of 13½ annas for a full size chest was granted to the Indian tea chest industry, I should imagine there would soon be a number of other factories springing

up; it would not be an easy matter to determine what the future commitments of Government in the matter of bounty would be.

Mr. Joseph.—The same problem arose in the case of steel.

Dr. Matthai.—We have given up the bounty system; that was provided only for a short period.

President.—Over a long period if the Government went before the Assembly and said "this would amount to Rs. 4 or Rs. 5 lakhs now but in four or five years time we do not know what it is going to amount to" it would be rather an unsatisfactory position.

Mr. Joseph.—You cannot establish a vincer mill in six months or so. If you give a bounty for a short period and then reconsider it, no body is going to launch out on a new mill meanwhile.

Dr. Matthai.—There are certain difficulties in the way of bounty.

Mr. Joseph.—Supposing you gave a bounty for two years and say you would reconsider it after two years you can be pretty certain that the number of mills is not going to increase within two years.

President.—We want them to increase. Obviously we want to establish the industry. On the other hand the import duty is also a matter of considerable difficulty because it appears to us from the letter we have received from the Customs Department that drawback under the Sea Customs Act as it stands at present can certainly be claimed by exporters of tea chests.

Mr. Joseph.—That is so, but if Government wish it can be amended.

President.—The amending of the Act is a difficult matter. It may raise questions regarding the whole system of drawback in India. For instance we were suggesting to the Assam Saw Mills yesterday the question whether it would be legitimate to refuse rebate in special circumstances, *e.g.*, if a firm which imported a number of tea chests for some reason or other wanted to get rid of them and exported them to Ceylon, that would be perfectly legitimate.

Mr. Joseph.—It would be.

President.—Such cases are conceivable and the question of precedent would arise. If in order to grant protection to this tea chest industry the Sea Customs Act had to be so altered as to prohibit the grant of rebate, then in the case of some other protected industry, similar alteration would have to be made.

Mr. Joseph.—I should have no objection to that when cases such as you suggest occur. What I say is that they should not be entitled to a rebate unless they re-export the boxes in the same form in which they come.

President.—For instance take motor cars. After having run them for two years you can get 1/3th of the original duty you paid on it without any depreciation. The whole rebate system is open to question.

Mr. Joseph.—You export the motor car in the same condition in which it came in.

President.—You can use it for 2 years.

Mr. Joseph.—It has not undergone a further process of manufacture.

President.—It is rather a debateable ground whether the putting together of battens, fittings and linings actually constitute manufacture or mere assembling.

Mr. Joseph.—When a man re-exports the boxes to Ceylon, he re-exports them, because he doesn't want them, but in the case of exporting them, and filling them with tea, they have been used for the purpose for which they were imported.

President.—So is a motor car. There are difficulties in the way. We suggest an alternative that the import duty might be abolished altogether on tea chests and an export duty might be put on exported tea calculated on the contents of tea and all tea packed in Indian made tea chests should be exempt from the protective export duty.

Mr. Joseph.—That would serve the purpose quite well.

President.—The export duty on tea has just been abolished. The re-imposition of the export duty might give rise to some misapprehension. If we found that any extra duty was necessary, we might consider whether a portion of it or the whole of it should be handed over to the Tea Cess Committee for propaganda work. Would that commend itself to you?

Mr. Joseph.—I think so.

President.—You would not insist on a bounty.

Mr. Joseph.—No. If we got equivalent help in that way, I do not see any reason why we should insist on the bounty.

President.—There is an aspect of the case which affects the producers of tea chests and it is this. If you abolish the import duty, in the market in India the imported tea chests would be able to compete with much greater success.

Mr. Joseph.—Yes, if you abolish the import duty.

President.—On the other hand you will have a great advantage in the disposal of your chests in the export markets, but in regard to internal transport, that would affect you.

Mr. Joseph.—There is no internal transport of tea that matters.

President.—40 million lbs. of tea is consumed in India.

Mr. Joseph.—How much of that has gone home first? It is most difficult to buy a pound of Assam tea or Darjeeling tea in India straight from the garden. There are certain gardens that sell. They don't like it. Under stress of public opinion they are beginning to do more, but broadly speaking the bulk of Indian tea is shipped out of India to London and I think you will find that a great part of the 41 million lbs. of tea which is consumed in India is not tea that comes straight from the garden—broken orange pekoe or any other brand, but is Liptons blue or red label.

President.—Of course tea is also blended and packed in tins in India.

Mr. Joseph.—Yes, some of it.

President.—You consider that for the internal trade of the country tea chests are not used in India in any great numbers.

Mr. Joseph.—No.

Rubber Chests.

President.—As regards rubber chests, have you thought about those at all?

Mr. Joseph.—No. I never knew anything about rubber chests until I saw Mr. Tarlton's note.

President.—So far as we could ascertain the requirements of the rubber industry, supposing all the rubber produced in India and Burma is shipped abroad in 3-ply chests—that is a big supposition—even if it was, the total amount of chests required would be a lakh a year.

Mr. Joseph.—I don't know what rubber is produced in India?

President.—In Rangoon there are rubber plantations. There are also plantations in Southern India. The export of rubber would require about a lakh of boxes at the outside as compared with 30 lakhs required for tea. So long as you are able to secure a constant demand for your boxes you would not really mind whether there was an export duty imposed on rubber chests or not?

Mr. Joseph.—I should let that go.

Amendment of the Sea Customs Act.

Dr. Matthai.—Have you considered the question of how to amend the Sea Customs Act in case it was necessary? In what form you would suggest an amendment to section 42 of the Sea Customs Act.

Mr. Joseph.—No. I haven't got the act with me either.

Dr. Matthai.—You might say "It is open to Government in such cases as Government thinks fit to disallow this drawback."

Mr. Joseph.—I should have thought that it was only meant to be claimable provided the exported article had not either been altered in form or used for the purpose for which it was imported.

Dr. Matthai.—"Altered in form" is a very difficult phrase to construe.

Mr. Joseph.—It is. Now to go back to the question of motor cars. I import, we will say, a Ford car and I take off the body and build a lorry on top of that and then I export that lorry. Do I get a drawback?

President.—Probably not since it must be identified by the Customs Department. But it has been suggested to us that the mere nailing together pieces of ply board and fittings would hardly constitute a form of manufacture.

Mr. Joseph.—I think it does.

President.—It is a mere question of assembling.

Mr. Joseph.—It is more than that.

Dr. Matthai.—The real point about tea chests is not that it undergoes a further process of manufacture in India, but that it is consumed before it is re-exported.

Mr. Joseph.—Certainly it has been used for the purpose for which it was imported.

Dr. Matthai.—In ordinary cases of consumption the form of the article essentially changes, but here it is very difficult for you to apply that test.

Mr. Joseph.—In my own mind the mere fact that the Government of India put on a 15 per cent. import duty as a fiscal measure seems to me good enough to show that they never contemplated a refund of 15th. What is the good of putting on 15 per cent. if 15th is going to be taken off again?

Dr. Matthai.—The Government of India at the time they imposed this duty, didn't release that it would be possible to make arrangements for identification or at least to identify it to such an extent as to enable these people to claim a drawback. Now that identification has become possible. The only course for Government is to abolish the import duty but that is not going to help you.

Mr. Joseph.—No.

President.—In the way of declaring that the drawback should not apply to this particular form of import, there are considerable difficulties, are there not?

Mr. Joseph.—There appear to be.

President.—Have you undertaken any advertising?

Mr. Joseph.—Yes, we do a good deal. We advertise in "Capital." We advertise in the local papers also in the "Statesman." We are advertising also in London.

Dr. Matthai.—Not in the Madras market.

Mr. Joseph.—No, because there again comes the question of freight. We are advertising in the "Planters Gazette", in the Surma Valley Magazine"—I have made enquiries about that. We are advertising in the Assam-Bengal Railway time table.

Dr. Matthai.—Do you hope to get any export trade?

Mr. Joseph.—No.

Dr. Matthai.—You say that you are advertising in London.

Mr. Joseph.—The Tea Houses in London read that paper.

Dr. Matthai.—You don't think that there is any possibility of developing the trade in artistic kinds of ply wood.

Mr. Joseph.—I don't think so.

Dr. Matthai.—You don't in the first place really cut the ply wood for artistic production.

President.—Instead of rotary machines, you cut your veneer into slices by a slicing machine?

Mr. Adams.—Yes. They use a rotary machine but not to any extent, because that has been proved to be so wasteful. If you contemplate going in for fancy or figure veneer, you should have a special machine, *i.e.*, a slicing machine. You get the best results. Again to turn them on the rotary, you have a certain piece of timber which is of no value to you, but if you cut on the slicer, you take a quartered flitch and put that straight on to the face plate. You cut it till you leave a board $\frac{3}{4}$ " thick. That quartered board which is left has a great value. In the furniture trade you will see advertisements saying that the top of this dining table, etc., is solid quartered oak and it has an enhanced value against the veneer. The veneer board is simply a plain board with only a veneer top. You get more money on the solid oak.

President.—That is the slice.

Mr. Adams.—Yes. If you cut your veneer on the rotary, you get a piece left which is absolutely useless. It is not an economic problem to cut quartered veneer on the rotary machine.

Prices of imported boxes.

Mr. Joseph.—With reference to question 39, I will give you one very definite case. In most of the comparisons I have made—we have got quotations f.o.r. Calcutta and then we know what the boxes are costing a garden—I had to make calculations about the freight and that of course introduces a certain element of error. In August 1926 the Acme Company quoted me for a chest. They have two boxes. One is called Standard "Imperial" and the other is called Regent "Imperial." They quoted me for the Standard "Imperial" f.o.r. or f.o.b. Calcutta from Rs. 4-1-0 to Rs. 3-15-6 according to the weight of the lining, and for the regent "Imperial" they quoted me Rs. 3-9-0. The head of a certain house in Calcutta—whom I cannot name but whom I know quite well—told me that he was getting them. He didn't know which type he was getting, but the figure he gave me was Rs. 3-6-11 f.o.r. Calcutta, which is lower than any quotations which the Acme Company gave me. It is As. 2-1 lower than the lowest of the Acme Company's quotations to me and As. 10-1 lower than the highest quotation.

President.—There are two ways of looking at it. One is the importers are quoting extremely low prices so as to undercut you and the other is the importers get the highest price they can making special reductions to secure new trade.

Mr. Joseph.—I am saying it is impossible to get firm quotations from the importers. They don't quote the same prices to everybody.

Dr. Matthai.—A system of special discount of that kind is not by any means an unusual thing.

Mr. Joseph.—No.

Dr. Matthai.—If there is a man who can give me a very large custom, I may give him a special discount.

Mr. Joseph.—The Acme Company made no enquiries of the amount I would take.

Dr. Matthai.—Take the case of Assam Saw Mills. They gave us an instance in which the importers offered to sell at a special discount provided all the orders were placed with them. There was another case in which the importer promised a special discount if the order was repeated. That was a perfectly legitimate transaction. I don't think importers are out for killing anybody, they are out for preserving themselves.

Jalpaiguri Timber and Lead Mills Company, Limited.

A.—WRITTEN.

(1) Representation dated 20th August 1927.

1. We beg to place before you a few facts in connection with our Company believing that the same will be considered favourably by you and we pray that suitable assistance would be rendered to our Company so that we can keep on.

2. We purchased the properties of the Buxa Timber and Trading Company and the Bengal Lead Mills Company and have secured from the Government the forest concession.

3. The old Company had to work under a clear felling contract with Government which entailed unnecessary labour expenses and they could not choose their timber. We have got selection felling concession from Government and we have kept a very small area for clear felling which is actually necessary for us specially for fuel, which we get free.

4. We have got another very important advantage, *viz.*, that several big Indian Tea Companies are its shareholders and the Directors of this Company are also Directors of several Indian Tea Companies, so that if we can only keep the price with foreign Tea costs, there is no difficulty in selling our products.

5. We generally manufacture tea chests from *simul* which we have found most suitable for ply wood and there are also other good wood which are also being successfully used. Enough timber is available in the forest. Besides, considerable areas have been planted by the Forest Department with "Champ", "Toon" and "Lalli," etc., and they have already acquired promising girth and in future the same sort of wood will be available in abundance from areas quite near our factory. Besides, there are large tracts in Assam, Burma, Southern India, Andamans, which can also supply suitable timber in any quantity.

6. Except our mill, there is no other Veneer Mills in Bengal, Indian or European. This is the only mill in India managed by Indians.

7. In purchasing the concern of the Buxa Timber and Trading Company, we were encouraged and assisted by the Government inasmuch the Government granted us better concessions and easier terms.

8. We have got our own waterworks installation at Rajabhatkawa which has greatly improved the sanitary condition of the place. Rajabhatkawa is a big timber mart and there are a large number of timber merchants who sell sal timber there. Our water works have laid pipes all over Rajabhatkawa and the supply water to the inhabitants of the place and also to the Railways at Rajabhatkawa.

9. Our machineries are quite adequate and up-to-date and it has got a capacity of turning out 350,000 boxes and more.

10. We have got our light Railways for carrying wood from the forest.

11. The Forest Department is also being substantially helped by the working of this Company and the portions clear felled by this Company are meant to be planted by the Forest Department.

12. From the above facts, it would appear that the natural resources, plants and machineries, its connection with the Tea Companies, all call for success of the Company, if there be no unfair foreign competition.

13. The failure of the Buxa Timber and Trading Company was mainly due to some initial mistakes and top-heavy management expenses. It spent too much and it had to experiment with its wood and glue, resulting in many failure and losses. Its clear felling contract also was a great handicap to it. The minimum royalty of the Company was also a source of considerable loss to it.

14. Indian management, as has been evidenced by Indian Tea Companies is highly economic without being inefficient. Our expenses are very much less and we are practising shortest economy in all departments.

15. We have got our Lead Mill which is completely equipped and thoroughly up to date and has a large capacity of production. The manufacture of lead sheet also has been quite successful.

16. From the above facts, it would appear that normally there is nothing against the India Tea Chest Industry being a complete success.

17. This industry is doomed to failure if it is to sell its chest at the price at which it is at present selling. In order to keep on with the market, we are now selling our tea chests at a loss. We believe it is the same thing with the two veneer mills at Assam. Unfair competition is killing the industry. We have given our figures as regards manufacturing costs in our replies. They can be reduced by more output. Even then it will show the bad plight of Indian Veneer industry.

18. We have not been able to attract adequate capital for our business as people have got firm idea that veneer mills in India cannot stand competition with foreign products and such mills are bound to be a failure. This is principally the reason why Indian capital is fighting shy of our concern and we are experiencing great difficulty in getting adequate working capital.

19. We have only commenced our manufacture and we strongly believe that if there be protection either in the shape of bounty say at 9 pies per square foot or a protective duty of 15 to 20 per cent. without any refund for some years, then the Industry is bound to stand. The duty on casein and alkalis should be removed. We are, however, more for bounty than for increasing the Import Duty.

(2) Replies to the questionnaire for the manufacturers of ply wood and chests, dated 20th August 1927.

1. This Company purchased the properties of the Buxa Timber and Trading Company, Limited, and the Bengal Lead Mills Company, Limited, from the Liquidators of these Companies in the year 1925. It actually commenced to manufacture Tea Chests in April 1927. The price of the properties of the Buxa Timber was Rs. 1,65,000 and the Bengal Lead Mills Rs. 1,00,000.

2 and 3. The manufacture of ply Board is confined only to that required for Tea Chests.

4. The full capacity of our factory is about 1,000 chests daily. With some improvements in the machineries the output can be increased. We do not manufacture 5-ply Board at present.

5. The actual output of our mill since manufacture commenced was on average 300 Tea Chests with slight variations. They are made of 3-ply Boards.

6. The sizes of the different Tea Chests are generally:—

19"×19"×24", 19"×19"×22", 16"×16"×20", 16"×16"×18".

Total 3-ply Board contained in Tea Chests.

	Sq. ft.
19"×19"×24"	17·31
19"×19"×22"	16·27
16"×16"×20"	12·13
16"×16"×18"	11·26

7 to 11. This Company as mentioned before purchased the properties of the Buxa Timber and Trading Company, Limited, and the Bengal Lead Mills Company, Limited, from the Liquidators of the two Companies for Rs. 2,65,000. It has since purchased some machinery parts and stores, etc. It has got the Forest concessions from the Government of Bengal on the lines

of the Buxa Timber and Trading Company with some modifications. It has to pay royalty on certain specified rates for certain classes of Timber and the minimum royalty is fixed at Rs. 10,000 a year. Besides it has to pay rents for the lands used for its factory site and quarters, etc., which are covered by a lease.

As stated above, this Company has purchased the plant and machineries of the old Company and it has been found necessary to make some important repairs in some of the machineries which will require expenditure.

Most of the machineries were purchased from the United States of America and some were purchased from England.

The present day cost under the heads (a) buildings, (b) plant and machinery, of erecting factory having the same capacity of output, would considerably exceed the block value shown in our books. The operating cost of a new factory with some improved machineries will not be certainly greater than ours.

12. The Company would require a working capital of 3 lacks of rupees according to its present output and a working capital of 6 lacks for the output equivalent to its full capacity.

13. This being an entirely new venture for the Indians, the first of its kind, this Company has not been able to subscribe sufficient capital, as Indian capital is generally shy specially in case of new industry. Besides, there is a widespread rumour that Indian veneer mill industry cannot stand against foreign competition which is dumping the market.

This Company is handicapped at present for working capital. Indian concerns very seldom get any assistance from European Banks or capitalist firms and not even from the Imperial Bank. It has got some assistance from the local banks but that is extremely inadequate.

Besides, the money borrowed at the time of purchasing the properties, it has further borrowed additional working capital about a lac of rupees, interest varying from 9 per cent. to 12 per cent., but mostly at 9 per cent.

The Company has to cut down many necessary costs for want of finance which has affected its output and has been drastically economising, but the average monthly cost ought not to be less than Rs. 20,000 per month.

17. Yes, the Company has to hold large stocks of coal and firewood and raw materials. The average value in one year would be about Rs. 70,000.

18 to 20. The Company has got a Head Office in the town of Jalpaiguri, besides its office at Rajabhatkawa for local management. The Company has got no firm of Managing Agents. It is managed by a Board of Directors and two Managing Directors. The Managing Directors at present do not take any remuneration. The annual amount of the present Head Office expenses is about Rs. 2,500.

21. 25 per cent. I should consider a fair return of dividend. The Tea Companies and Jute Mills give a very large dividend but the ply wood industry unless it is supplemented by other ply wood products besides tea chests cannot possibly make a profit more than that.

Our experience is that at present as the market stands now the manufacturing costs exceed the price fetched on account of the dumping of the market by cheap foreign chests which are bounty-fed.

One of the principal ingredients in the manufacture of chests is glue (case in cement). The price of this is rather high. This greatly affects the cost of manufacture.

Besides in the Buxa Range, we do not get one class of wood at one place in a large quantity at present, though this disadvantage will be removed after some years when the re-planted areas will mature. The extraction costs at present are rather a bit high. Shareholders cannot legitimately expect high profits in this industry and they should consider themselves if they get a dividend of anything like 25 per cent. The industry however is a great

social boon as it maintains a large number of middle class people and gives work to a large number of labouring class.

22. The working costs are given below: They will, however, be reduced if the output be increased:—

3-ply Board (per square foot).		Rs. A. P.
Timber	.	0 0 4-16
Glue	.	0 0 10-39
Power and Fuel	.	0 1 4-64
Labour	.	0 0 5-37
Supervision	.	0 0 3-08
Renewals and Repairs	.	0 0 0-70
TOTAL		0 3 3-34

23. 3-ply Chests (19"×19"×24") cost under—

	Rs. A. P.
Timber	0 6 0
Glue	0 15 0
Power and Fuel	1 8 0
Labour	0 7 9
Supervision	0 3 0
Renewals and Repairs	0 1 0
Fittings	0 8 0
Lead Linings	0 12 0
Nails, etc.	0 0 6
Grease proof paper	0 0 6
Stores	0 0 2
Packings, etc.	0 0 1
Miscellaneous	
TOTAL	4 14 6

24. There is no difference in the above items of costs of a 19"×19"×22" chest except 1 anna less in glue.

We do not manufacture 16"×16"×20" and 16"×16"×18" sizes. These are got from rejections of bigger sizes.

25. The price f.o.r. works in 1926-27 with Lead Lining—

	Rs. A. P.
19"×19"×24" chests	3 7 6 each.
19"×19"×22" chests	3 5 6 "
16"×16"×20" chests	2 10 0 "
16"×16"×18" chests	2 9 0 "

26. We supply chests to several Indian Tea Companies to their gardens in Assam, Darjeeling and Duars.

28. We dispose of our Tea chests through the Jalpaiguri Banking and Trading Corporation, Limited, who are our selling Agents

Equipment.

29. Yes, our mill is sufficiently large as an economic unit of production which can be operated economically under present day conditions. As stated above some small repairs and improvements are to be made.

To ensure economy the smallest unit of production should be 500 chests per day.

31. A brief descriptions of our plant and machinery.

Saw Mill Machinery.

We have a complete saw Machinery containing among other things the following:—

1. A breaking down Saw Machine, 48" diameter, saws Log carriage complete with set works.
2. A gang edger 4 saws, takes 30" planks (Board), indexed for cutting various breadths by Newman Manufacturing Company, United States of America.
3. A friction log hauling winch for machine No. 1 by Lane Manufacturing Company, Limited, United States of America.
4. A planer, Matcher and Moulder, 24"×8" by Newman Manufacturing Company, Limited, United States of America.
5. An Oliver Universal saw bench two spindles saws, 18" diameter by Oliver Machine Company, United States of America.
6. A gang Rip Saw, takes 4 saws, 16" diameter, power feed by Robinson Limited, England.
7. A power feed Rip Saw, takes 20" diameter and will rip upto 6½" table mounted on four cams supported by guides by Newman Manufacturing Company, United States of America.
8. A power saw sharpener for 48" saw, can also be used for hand cross cuts by Newman Manufacturing Company, United States of America.
9. An Automatic Saw sharpener by Newman Manufacturing Company, United States of America.

Lathe Room.

1. Four Veneer Lathes, 42"×3", with all necessary machines by Coe Manufacturing Company, United States of America.
2. Veneer Lathe, 100"×50", with its necessary machines by Coe Manufacturing Company, United States of America.
3. Automatic knife grinding machine for veneer Lathe knives by Baxter D. Whitney & Son, United States of America.
4. 2 Perfection Corridor Driers, 90' long, 7'6" broad each, complete with steam coil, steam valves and fans.
5. A L. K. H. E. Tangys Grude Oil Engine, 50/60 H.P., 210.

Glue Room.

1. 4 Glue spreading machine, 36". Roller automatic adjustment to top roller by Chas E. Francis & Co., United States of America.
2. Three belt driven Hydraulic Pumps.
3. Three Hydraulic presses, will take 2' 6"×2' 6" pressure upto 4,000 lbs. per square inch.
4. Two veneer clippers, power driven with friction pulleys.
5. 2 Trimming Saw benches, Wilkin Challoner & Co., United States of America.
6. Panel scraping machine, 24", four Cylinders, automatic adjustment for setting of knives by Baxter D. Whitney & Co.
7. Four belt driven glue mixing machines.
8. Four Drag Saws.

We have a complete Bye-products machinery which are not at present in use.

We have got our Light Railway to bring logs and fuel from the forest. We have got two Locomotive Engines.

We have got one Skidder and one Emerson Dry Kiln.

Power House.

1. A. C. Corliss Engine, Cylinder, 18"×30", fly wheels 10' diameter, Revolution 125 per minute, steam pressure 125 lbs., Gripal steam trap with steam receiver, an Engine Driver, 88' of 3, 1½" diameter, shafting by Allis Chalmers & Co., United States of America.

2. Another Engine, A. C. Corliss Engine, 16'×30', 10' diameter fly wheel, Revolutions 125 per minute which is used for the Lead Mill.

3. A Roby Horizontal Engine, 2 Cylinders, 14"×18", 125 Revolution, fitted with Bickering Governor steam inlet, 4" diameter.

4. A vertical Engine with Dynamo by Allis Chalmers.

Three and four are not in use. These are in the Bye-product plant.

Boilers.

Six Multitubular Boilers, 16'×5' 6" diameter, 54 tubes, 3½" diameter, fitted with safety valves, main stop valves, auxiliary stop valves, water gauge and low water alarm whistle, smoke box, breaching chimney's, 55" long.

In the Bye-products, there are two Babcock and Wilcox H.P. boilers fitted with stop grate Furnaces, slap side, firing door and rocking grate, 1,426 square feet, heating surface.

In the American Unit.

Three Multitubular Horizontal Boilers, 16'×5'×6", 54 tubes, each 3½" diameter, 16' long, steam pressure 125 lbs.

In the Pump House.

Two 7 B.H.P. Vertical Boilers, 2'×10" by 10' high, complete with Double Spring safety valve, stop valve check, etc.

One 30,000 Gallon M. S. Tank.

One 4,000 Gallon Water Tank.

32. Yes, our machineries and other equipments are sufficiently up-to-date and efficient (unless there is unfair competition by bounty fed foreign manufactures) to enable us to compete against foreign manufactures. We are not certainly under any disadvantage on the score of plant and machineries.

33. No, except that some repairs and small additions will be necessary and the fitting of a saw in the saw mill the total cost may not exceed Rs. 35,000.

Foreign Competition.

Foreign competition is most severe from Japan, England and Finland.

We are strongly of opinion that the imported Tea chests have driven and are driving the Indian Industry off the market. It has already driven the industry of country made shooks. The manufacturing costs incurred by us and probably by other mills in India exceed the price at which the foreign chests are selling even if strictest economy be observed by us. We think that there should be a bounty of 4 as. per chest.

37. Yes, we ourselves have been compelled to reduce our price considerably to go on with the market.

38 and 39. We have no reliable information on these two points

JALPAIGURI TIMBER AND LEAD MILLS COMPANY, LIMITED.

B.—ORAL.

Evidence of Mr. N. R. GHOSH, M.A., B.L., recorded at Calcutta on Tuesday, the 23rd August 1927.

Introductory.

President.—Mr. Ghosh, what is your exact position in regard to the Jalpaiguri Timber and Lead Mills Company?

Mr. Ghosh.—I am the Managing Director.

President.—The company which at present manages what was before the Buxa Timber and Trading Company is called the Jalpaiguri Timber and Lead Mills Company, is it not?

Mr. Ghosh.—As a matter of fact this company was started like this. Some people—myself and others—thought that the properties of the Buxa Timber and Trading Company and the Bengal Lead Mills Company should be purchased by us because we have got some facilities. We have got some control over tea companies and therefore we have started this company, thinking that we can run the concern on more profitable lines. With that view, we formed the Jalpaiguri Timber and Lead Mills Company and purchased the properties of the Buxa Timber Company and the Lead Mills Company.

President.—You acquired the Lead Mills and the Veneer Mill of the Buxa Timber and Trading Company.

Mr. Ghosh.—Yes.

President.—In addition to the manufacture of lead sheets and veneers, do you manufacture anything else?

Mr. Ghosh.—Nothing else at present.

Dr. Matthai.—You have a saw mill.

Mr. Ghosh.—Yes, and we have also got a by-products mill.

Dr. Matthai.—That is not working now?

Mr. Ghosh.—No.

Dr. Matthai.—What do you do with the products of your saw mill?

Mr. Ghosh.—At present?

Dr. Matthai.—Yes.

Mr. Ghosh.—We have not developed it. But our idea is that there is a demand for sawn timber in the Doars District. Many tea gardens have placed orders with us for sawn timbers, planks, etc.

Dr. Matthai.—You don't make country shocks, do you?

Mr. Ghosh.—No.

Dr. Matthai.—And this company was formed I suppose expressly for the purpose of taking over the Buxa timber business and the lead business.

Mr. Ghosh.—Yes.

President.—In all you paid about Rs. 2,60,000.

Mr. Ghosh.—We paid Rs. 2,65,000 and a little more than that. Between the time of the contract and the actual deed of sale, we had to pay some expenses to the liquidators for keeping those things in good condition for us.

President.—Where are your works situated?

Mr. Ghosh.—At Rajabhatkawa—within a minute's walk from the railway station.

President.—In what district is it?

Mr. Ghosh.—It is in the Jalpaiguri district—somewhere about 10 miles from Alipur Doars which is the subdivisional headquarters.

President.—It is in Bengal.

Mr. Ghosh.—Yes.

Dr. Matthai.—But your head office is in Jalpaiguri.

Mr. Ghosh.—Yes.

Dr. Matthai.—The works are in Rajabhatkawa.

Mr. Ghosh.—Yes.

Dr. Matthai.—Is your company a public company?

Mr. Ghosh.—Yes, it is a joint stock company.

Forest lease held by the Company.

President.—With the works and other properties, you took over the lease of the Buxa Timber and Trading Company?

Mr. Ghosh.—We did not exactly take that lease. We refused to take that lease because it caused much inconvenience to the former company and therefore we managed with the Government to take the lease in a modified form especially in one respect. The Buxa Timber and Trading Company had a clear felling lease and when a particular area was allotted to them, they had to clear the whole area and had to take all timber, good, bad and indifferent. They had no other alternative but to select all sorts of timber for work and it entailed much labour and expense.

President.—You are acquainted with the original lease, are you not?

Mr. Ghosh.—Yes.

President.—Was there any clause in it such as we found in some of the Assam companies that the Buxa Timber and Trading Company should erect a veneer mill within a certain period?

Mr. Ghosh.—Yes, there was.

President.—Can you tell us what the period was?

Mr. Ghosh.—I think the period mentioned was “within two years.” Had I known that this information would be wanted, I would have supplied it.

Dr. Matthai.—Do you remember the date of the lease? Was that before 1920 or 1921?

Mr. Ghosh.—I think that it was 1917.

Dr. Matthai.—Was there any provision in it for the erection of the veneer plant?

Mr. Ghosh.—Yes.

President.—Could you send us a copy of that lease?

Mr. Ghosh.—Yes, I shall send you a copy.

President.—Your present lease is for what particular area?

Mr. Ghosh.—At present, it is for about 40 square miles as will be allotted by the Conservator of Forests.

President.—There is no definite area fixed, I mean no definite block is fixed.

Mr. Ghosh.—Particular blocks are allotted for particular years.

President.—That is to say, coups will be allotted to you by the Forest Department.

Mr. Ghosh.—Yes.

President.—What is the name of the area?

Mr. Ghosh.—It is called the Buxa Range—that is quite close to our factory.

President.—How do you bring in your wood?

Mr. Ghosh.—We have got our own light railway.

President.—Was that also taken over from the old company?

Mr. Ghosh.—Yes.

President.—What wood do you use?

Mr. Ghosh.—Generally simul.

Dr. Matthai.—Have you any other suitable wood in that area?

Mr. Ghosh.—Yes, there are three or four other kinds of wood.

Dr. Matthai.—You have mentioned some of them here, haven't you?

Mr. Ghosh.—Yes.

Dr. Matthai.—You have not got the botanical names of these?

Mr. Ghosh.—No. We also use cadamba.

Dr. Matthai.—I notice you mention two or three.

Mr. Ghosh.—We have also got champ and toon. They can be sold at a good price.

President.—That is hard wood.

Mr. Ghosh.—Yes, but it is also suitable for veneering purposes.

Dr. Matthai.—Are you satisfied that there is enough simul within easy distance of your works for your full capacity? You say that your full capacity is somewhere about 3 lakhs of chests a year?

Mr. Ghosh.—There is not enough "simul" for our full capacity, but we have other wood equally good.

Dr. Matthai.—Are you satisfied that you have enough wood in the area which has been leased to you?

Mr. Ghosh.—We have got abundant trees, but there is one difficulty. They are not in the same place.

Dr. Matthai.—Extraction would, I suppose, be difficult.

Mr. Ghosh.—A little bit.

President.—You have to drag your simul over a considerable distance.

Mr. Ghosh.—We have got skidders to drag these timbers. They are of great use to us. As a matter of fact, the Conservator of Forests chooses for us convenient areas.

President.—But in course of time these areas would have been worked out.

Mr. Ghosh.—There are other areas which have been replanted and those trees will mature in the course of some ten or fifteen years and more. When they begin to mature, there will be absolutely no difficulty because in a small area there will be enough wood of the same class.

President.—What would be the acreage which Government have planted?

Mr. Ghosh.—About 1,000 acres, I believe, but I have no definite information about the exact area. I have seen those plantations. They are very, very promising and are fine plantations.

President.—Have you a supply of, say, 6,000 tons a year for the next fifteen years?

Mr. Ghosh.—I think so.

President.—It is about 90,000 tons of simul altogether.

Mr. Ghosh.—There won't be much difficulty in getting that supply with simul and other woods.

Dr. Matthai.—Has there ever been any enumeration by the Forest Department?

Mr. Ghosh.—Yes.

Dr. Matthai.—When the Buxa Company took this lease, did they have an enumeration at all? You have nothing in your papers to show that there has been an enumeration made by the Forest Department.

Mr. Ghosh.—I heard probably from Mr. Reid and from one of the officers of the old company that there was a careful examination of the forests made before.

Dr. Matthai.—Mr. Reid is one of the forest officers?

Mr. Ghosh.—No. Mr. Reid was one of the liquidators. He was connected with the old company.

President.—The enumeration was made by the Buxa Company. I take it.

Mr. Ghosh.—Yes, by their own men.

Lead linings.

President.—What is the outturn of your lead linings at present?

Mr. Ghosh.—At present we are not manufacturing more lead linings than we require for our own boxes but there is enough demand for lead sheets from outside.

President.—Where do you get your lead from?

Mr. Ghosh.—From Burma. We purchase it in Calcutta market at present.

Dr. Matthai.—Do you mean that the sheets which you roll in your mills are used by people other than tea planters?

Mr. Ghosh.—The lead mill is meant for that because the old company used to sell most of their manufactured sheets to other people.

Dr. Matthai.—Is the lead sheet used for purposes other than tea chests?

Mr. Ghosh.—Those people who use country shooks purchase lead sheets from lead mills and they use slightly thicker sheets. Lead sheet is used for other purposes also.

President.—They will use 4 oz. sheets?

Mr. Ghosh.—3 or 4 oz. sheets.

Dr. Matthai.—What is the total capacity of your present plant? How many tons of lead sheet could you turn out in a year?

Mr. Ghosh.—I cannot tell you definitely. It has got a big capacity, that is what I was told by the mill manager. 3 tons of lead sheet can be turned out every day. That is the full capacity.

Dr. Matthai.—Are you satisfied that there is enough for 3 lakhs of boxes?

Mr. Ghosh.—Much more than that.

President.—You make also fittings.

Mr. Ghosh.—No, we purchase fittings at present.

President.—Where do you purchase them from?

Mr. Ghosh.—From Calcutta firms.

President.—From what firms?

Mr. Ghosh.—Generally from Messrs. A. T. Dey and Company and also from another Bengalee firm.

Fuel.

President.—What fuel do you use for your power house?

Mr. Ghosh.—At the beginning we used timber because that is supplied to us absolutely free. But we found afterwards—at present coal is rather cheap—that if we used coal and timber together, it would be more economical for us.

President.—Where do you get your coal from?

Mr. Ghosh.—From Jheria.

President.—What does it cost you when it reaches your factory?

Mr. Ghosh.—Not more than 7 annas per maund.

President.—How much does that come to per ton?

Mr. Ghosh.—About Rs. 13 per ton.

President.—Do you find that the mixed fuel is more economical than wood alone?

Mr. Ghosh.—Yes. I first learnt from Mr. Earwaker who is also a big shareholder of the company. He gave me that advice. He has got good experience.

President.—We find, for instance, that the Assam Saw Mills and Timber Company use almost entirely wood.

Mr. Ghosh.—But our experience is that if we use this sort of mixed fuel, it is more economical.

President.—Your fuel charges are fairly high per box.

Mr. Ghosh.—Yes, the difficulty is that we have just started working.

President.—“Power and fuel” comes to Rs. 1-8-0.

Mr. Ghosh.—This will be considerably reduced afterwards.

President.—The other companies' figures for power and fuel are much lower. The Assam Saw Mills and Timber Company's figure is 7 pies.

Dr. Matthai.—Your charges for power and fuel are very high.

Mr. Ghosh.—They have to pay the cost of extraction.

Dr. Matthai.—Apparently they get the bulk of their fuel from refuse wood.

President.—They use the hearts, waste veneer and bark.

Mr. Ghosh.—That cannot be sufficient for their purpose. They must have other fuel.

President.—Their cost of power and fuel is 7 pies per box. We are indicating that item because we think that it would be worth your while looking into it.

Mr. Ghosh.—These figure are supplied to me by the manager. I do not know what he meant by power. He could not have included labour in it.

Dr. Matthai.—No, because there is a separate entry for labour. The Assam Railways and Trading Company's figure for power and fuel is slightly more.

Mr. Ghosh.—Do they mention lubricating oil or anything like that?

President.—That comes under stores.

Mr. Ghosh.—How much?

Dr. Matthai.—Stores and labour are entered jointly by the Assam Saw Mills and Timber Company and that at present comes to 2 annas and 8 pies box, so that you see there is something which calls for explanation in your charges for power and fuel. You had better look into it.

Mr. Ghosh.—I think there must be some mistake.

President.—In examining the costs of the other companies if the Board was of opinion that in certain directions there was scope for economy, we indicated in what directions we thought the company might economise. The attitude of the Board in this matter is that as far as possible we base our proposals on what we consider are reasonable costs.

Dr. Matthai.—The Assam Railways and Trading Company use coal. Their charges under power I find is about three annas per box, so that it is very difficult to understand your figure as it stands at present.

Mr. Ghosh.—There must be something inaccurate. It cannot be so much.

Labour.

President.—Have you any difficulty in securing labour?

Mr. Ghosh.—No.

President.—You have an adequate supply of labour.

Mr. Ghosh.—The former company had enough labour at the place and when they heard that we were also starting business many of the coolies who went to the tea gardens came back and we had not to recruit.

President.—Your supervision is entirely Indian?

Mr. Ghosh.—Yes.

President.—Do you employ any European?

Mr. Ghosh.—No, we have not at present employed any European but we are trying to secure the services of an expert.

President.—You are not able to get an Indian expert.

Mr. Ghosh.—Yes, we have almost made an arrangement with an Indian expert who has got experience in America, in Russia, in Germany, and I believe also he had been to Finland.

Dr. Matthai.—Has he any experience in veneer mills?

Mr. Ghosh.—Yes, and all sorts of wood products. I saw him yesterday and we talked over matters. He is very hopeful. He says that the saw mill can be developed. There are enough supplies of wood there which can be utilised in other ways.

Dr. Matthai.—What exactly is his experience? Did he work as an apprentice?

Mr. Ghosh.—He actually worked in the mills there. He was an engineer.

Dr. Matthai.—How long was he abroad?

Mr. Ghosh.—Seven years. He worked also for some time in Mesopotamia. He was given big construction works by Government.

Dr. Matthai.—Do you mean during the war?

Mr. Ghosh.—Yes.

Dr. Matthai.—Who is in charge of the technical direction at present?

Mr. Ghosh.—At present there is one lead mill manager. He worked in the former company's lead mill. He knows the work practically.

Dr. Matthai.—And in the veneer mill?

Mr. Ghosh.—Our present manager was an employé of the Assam Saw Mills and Timber Company. He knows the work. He has got practical knowledge of the work. But he is not an expert.

Glue.

President.—Do you manufacture your own glue?

Mr. Ghosh.—No.

President.—Where do you purchase it from?

Mr. Ghosh.—We purchase it from different firms. We have used Arracan Rice Mills glue; we have also purchased glue from Colombo and we have also purchased glue from Messrs. Smith Stanistreet and Company.

President.—What kind of glue is it?

Mr. Ghosh.—It is casein glue.

President.—Your charges are very high.

Mr. Ghosh.—This will be considerably reduced because we can get glue at about Rs. 1,300 and that will reduce the cost from 13 annas to 8 annas. I do not know what the other companies' expenses are under that head, but according to our calculations it can be reduced to 8 annas.

President.—Have you contemplated making your own glue?

Mr. Ghosh.—Yes. As a matter of fact I saw one gentleman who had his education in Germany. He was manufacturing glue there—that was his special department. He says that from casein he can manufacture glue. As a matter of fact he will give us samples within a fortnight.

President.—When your ply or veneer comes from the lathe, it is taken along the travelling table to the clipper which consists of a knife blade which cuts the plies into certain lengths. At that time you allow a margin for wastage in veneer.

Mr. Ghosh.—Yes.

President.—After that it goes to the drier and after being dried, it is again trimmed in a clipper and you still allow a margin of about one inch for veneer trimming.

Mr. Ghosh.—Yes.

President.—Have you considered the extent of the margin you allow? The reason why I am asking that is because we have found that in the case

of one company at least rather an excessive margin was being allowed. In consequence when the veneer came to be glued together, the glue, spread over that portion of the margin which was finally cut off, accounted in part for the extra cost of the glue.

Mr. Ghosh.—I don't think that a very great margin is allowed for shrinkage.

President.—It is a point which might engage your attention.

Mr. Ghosh.—I shall look into it.

President.—Because even your 8 annas for glue is a high charge.

Mr. Ghosh.—I understand that the charge can still further be reduced.

Dr. Matthai.—The charges that you give here are the charges that you have incurred during the past 5 months.

Mr. Ghosh.—Yes.

Output.

Dr. Matthai.—You have been working for the last five months on an output of about 300 chests a month.

Mr. Ghosh.—No, 300 chests per day. But we don't work on all days. On those days when the mill works we generally manufacture not less than 250 chests per day. In any case it was never less than 200 chests a day.

Dr. Matthai.—How many chests have you disposed of by now? Would it be 10,000 chests?

Mr. Ghosh.—More than that.

Dr. Matthai.—In these five months?

Mr. Ghosh.—Yes, all to our own companies.

Dr. Matthai.—Do you mean by your own companies which are represented among your shareholders?

Mr. Ghosh.—Yes, and other tea companies whose Directors are also Directors of this company.

Dr. Matthai.—Am I right in thinking that the bulk of your capital is owned by people who are interested in tea companies?

Mr. Ghosh.—Yes, at present.

Dr. Matthai.—It is really an enterprise by Indian tea companies to provide their own chests.

Mr. Ghosh.—Exactly, and those tea companies which did not subscribe have given us the word that they would purchase our chests and they have also given us some advance against the supply of chests.

Quality of the Simul Chest.

Dr. Matthai.—How does a simul chest compare with the imported chest? Is it quite as strong?

Mr. Ghosh.—Yes, it is certainly as strong, though it is not quite as white as the imported box. The finish is also a bit inferior to the imported quality.

Dr. Matthai.—Do you mean by finish the appearance?

Mr. Ghosh.—Yes.

Dr. Matthai.—Appearance does not matter in a thing like a packing case.

Mr. Ghosh.—Quite so.

Dr. Matthai.—In point of strength?

Mr. Ghosh.—I don't think that it is in any way inferior.

Dr. Matthai.—Your purchasers are quite satisfied with the quality of your product.

Mr. Ghosh.—We have not received any complaint on the score that it is a simul box.

President.—Have you received complaints on other counts?

Mr. Ghosh.—Yes, we have got a complaint about some chests with regard to glue, which was due more to our carelessness in manufacturing than to anything in glue.

President.—Do you use the cold process or not for your glueing?

Mr. Ghosh.—Yes, we do.

President.—Can you tell us approximately what amount of timber in the log goes to one tea chest?

Mr. Ghosh.—I think that I have given that in reply to the questionnaire.

Dr. Matthai.—What you give is the actual square foot of ply wood but what we are asking you now is that if you want to get a chest of $19 \times 19 \times 24$, how much simul in the log you have got to put into your veneer mill?

Mr. Ghosh.—I will supply you with this information afterwards.

Royalty.

President.—You have got a minimum royalty of Rs. 10,000.

Mr. Ghosh.—Yes, formerly it was Rs. 30,000.

President.—If we were to assume that 1 cubic foot of timber in the log went to one chest, that would mean, on an outturn of 160,000 chests you would pay at the rate of one anna per chest for your timber.

Mr. Ghosh.—I do not know whether you have understood the exact position regarding royalty. The idea of minimum royalty is this that we must pay Rs. 10,000 even if we extract timber the royalty of which comes only to Rs. 2,000.

President.—That is exactly what I mean. The point is this. You are paying Rs. 10,000 royalty a year.

Mr. Ghosh.—Yes. We shall have to pay Rs. 12,000 if we actually extract timber worth that royalty.

President.—Last year you have turned out about 16,000 chests.

Mr. Ghosh.—Yes, this year we have got a special concession from Government. There is no minimum royalty.

President.—In future years you will have to increase your output in order to keep your costs down.

Mr. Ghosh.—In the coming years, the minimum royalty has been put down at Rs. 5,000. As a matter of fact this year we have extracted wood whose royalty would be about Rs. 12,000.

President.—What do you use your other timber for?

Mr. Ghosh.—There is much timber left.

President.—Do you use it in the saw mills?

Mr. Ghosh.—We shall use it in our veneer mill and also in the saw mill. This year we could not do so much work as we contemplated on account of small parts being missing which could not be got here.

Dr. Matthai.—How exactly does your provision about royalty work? Is it so much per cubic foot subject in the aggregate to a minimum of so much? Is that how it stands?

Mr. Ghosh.—There is a rate per cubic foot for different kinds of wood.

Dr. Matthai.—Do you remember at all what is the rate for simul?

Mr. Ghosh.—I can give you a copy of the lease which we have got. In that lease it is enumerated.

Dr. Matthai.—It is in the lease?

Mr. Ghosh.—Yes.

Dr. Matthai.—It is so much per cubic foot of a particular kind of tree and then in the aggregate a minimum of so much.

Mr. Ghosh.—The rate for simul is very, very low.

Dr. Matthai.—Would it be as low as 6 pies? or is it lower than that?

Mr. Ghosh.—I don't think that it is as low as 6 pies, as far as my impression goes.

Dr. Matthai.—This minimum that you referred to as Rs. 10,000, that was the minimum which was laid down for the Buxa Company?

Mr. Ghosh.—Their minimum was Rs. 30,000.

Dr. Matthai.—Even in regard to the Rs. 10,000 Government are prepared to make exemptions in certain years.

Mr. Ghosh.—Yes, they have already made.

Dr. Matthai.—Under the terms of your lease strictly the minimum that you have got to pay is Rs. 10,000 a year.

Mr. Ghosh.—Yes, after 5 years.

Dr. Matthai.—So, during these five years, there is no provision about a minimum.

Mr. Ghosh.—During this year there is absolutely no minimum.

President.—Could you tell us what proportion of the cost of timber that you give at 6 annas per box represents royalty?

Mr. Ghosh.—I think it is almost negligible, not more than 6 pies I think.

Dr. Matthai.—You are sending us a copy of your lease?

Mr. Ghosh.—Yes, a copy of our lease and also a copy of the old company's lease.

Extraction charges.

Dr. Matthai.—Do you expect your timber charges to rise as you get further and further afield?

Mr. Ghosh.—I do not think it should, but even if it rose in that direction it would not affect us. As I said the cost of timber is not so much on account of royalty, it is more on account of labour.

Dr. Matthai.—Exactly, but if you go further and further afield your cost of extraction will be more, will it not? The further you go from the railway the more it will cost you to drag your timber down.

Mr. Ghosh.—That is true unless we come back to the planted areas which are quite close to our factory. When that area yields timber our costs will be considerably reduced because in one small area we will have a large amount of timber of the same kind.

Dr. Matthai.—What time do you think it would take to mature?

Mr. Ghosh.—Simul would mature in about 20 years.

Dr. Matthai.—How long ago were these areas planted?

Mr. Ghosh.—Some 10, some 15 years ago.

Dr. Matthai.—So that in five or ten years' time these will mature?

Mr. Ghosh.—Yes.

President.—Are they planted in big blocks?

Mr. Ghosh.—Yes, in rows.

President.—To what size have they grown?

Mr. Ghosh.—Simul I think 4' girth at breast height. I am not sure about simul but I particularly noticed *champ* and *toon*.

Packing Costs.

President.—You have a very low item in your costs for packing, only 2 pies. What method of packing do you adopt?

Mr. Ghosh.—I don't think it is different from others, just as the old company used to do it. The clerks who were in the old company have been re-appointed here and they supervise the packing.

President.—What is the system?

Mr. Ghosh.—We close them in wooden boxes.

President.—Then surely the cost of wood must be considerable?

Mr. Ghosh.—I am afraid I do not know how they arrived at this figure.

President.—You do not use your waste veneer for packing, do you?

Mr. Ghosh.—I have seen boards packed in waste veneer, at least in three or four instances.

Cost of management.

President.—Do you make 5 ply?

Mr. Ghosh.—No. I may tell you that our management cost is very small.

President.—But your supervision charges come to 3 annas?

Mr. Ghosh.—I think it is not correct. The managing directors do not take any remuneration.

Dr. Matthai.—Your supervision charges of 3 annas now is based on an output of 90,000 chests a year, is it?

Mr. Ghosh.—That is how the manager has calculated it, but if it is 3 annas now, it will also be 3 annas even if we manufacture 3 lakhs of boxes; it would be much less per box but the total would be the same.

President.—These costs are given on an output of how much?

Mr. Ghosh.—Of, say, 10,000 chests per month during the last 5 months, that is 2,000 chest per month.

Dr. Matthai.—You say 300 a day and you have sometimes manufactured about 200 a day. Taking it at 200 a day and taking your year as a year of 300 days it will be about 60,000 boxes.

Mr. Ghosh.—We have not worked on all the days during these five months because 5 months at 300 a day will give you a much larger figure.

President.—What do you do with your labour when you do not work?

Mr. Ghosh.—They bring timber from the forests and do other work. They could not be profitably used because the mills had to be closed down on different days owing to defects in the knives and defects in the machinery and so on and that accounts for the high figures which have been shown.

President.—So that these figures that you have given would not give us an approximate idea of the cost if you were working full time?

Mr. Ghosh.—No.

President.—In that case you would agree, I suppose, that in working any proposals that we might make for assistance to the industry we should be justified in basing our proposals on the lowest costs which have been produced before us?

Mr. Ghosh.—We realize that.

President.—Any protection which we recommended based on the lowest costs which we considered as reasonable would be a suitable protection for your company when you work full time?

Mr. Ghosh.—Yes. What we did was we made some imaginary calculations and we thought that at the present price that is fetched by boxes manufactured by us—we get the same price as Luralda chests, rather something higher—at that price no company can stand.

President.—Quite so. What I was trying to point out to you was that any proposals based on the reasonable costs of a company working in India would be equally applicable to your mill. You don't complain that you are working at any disadvantage compared with other mills, do you?

Mr. Ghosh.—No. We are rather in an advantageous position because we are not very much handicapped in selling our output. Our management cost also is much less because our officers get much lower pay.

President.—So, if we were to take the Assam Saw Mills and Timber Company which is turning out most boxes at present and based our proposals on those costs our proposals *ipso facto* will be applicable to your factory also?

Mr. Ghosh.—They have an advantage over us in this that they turn out larger number of boxes, and when the output is large, the cost is less.

President.—You propose to turn out a larger number of boxes. Unless an industry turned out a reasonable output it could hardly have any claim for protection.

Mr. Ghosh.—I think the manufacturing costs will be something between Rs. 3-4-0 and Rs. 3-8-0.

President.—At present what price do you obtain?

Mr. Ghosh.—We are obtaining the price of the Luralda and that is Rs. 3-7-6.

Competition from imported makes.

President.—Have you experienced very severe competition from imported chests?

Mr. Ghosh.—Yes; though our Indian companies are quite willing to purchase our chests, they tell us that they cannot pay more than what they are paying for Luralda.

Dr. Matthai.—Luralda is your standard?

Mr. Ghosh.—Yes.

Dr. Matthai.—What precisely is your arrangement for sales? Most of the people who buy chests from you are associated with your company, but those people will not buy from you unless you sell at a price which is not at any rate higher than Luralda chests?

Mr. Ghosh.—Exactly.

Dr. Matthai.—Supposing to-day the Luralda is selling at Rs. 3-4-0 you can expect to get that price from your purchasers?

Mr. Ghosh.—Yes.

Dr. Matthai.—That is to say, at the same price they prefer your chest?

Mr. Ghosh.—Yes.

Dr. Matthai.—I think you speak of dumping by foreign manufacturers and you also say that they are bounty fed. Could you give us the source of your information as to bounty being granted on chests. We should be obliged if you could give us the information.

Mr. Ghosh.—I shall try to supply the information if I can get it.

Dr. Matthai.—This is the first time this particular point has been brought to our notice and we should like to have more information as to bounty being granted to ply wood.

Mr. Ghosh.—If I can get hold of any information on which you can rely, I will send it to you later.

Dr. Matthai.—Your competition is mainly from Japan?

Mr. Ghosh.—We have selling agents in Jalpaiguri who sell our chests. There is a big bank there, the Jalpaiguri Banking Corporation who finance practically all the tea companies there. They have got a trading department. They import Luralda and also Japanese chests.

Dr. Matthai.—Are these Japanese chests ply wood?

Mr. Ghosh.—Yes.

President.—Is there any market name?

Mr. Ghosh.—They have got a name, but I forget it.

Dr. Matthai.—Some years ago they used to import boxes from Japan which they called *Moni*.

Mr. Ghosh.—Yes.

President.—What is the price of the Japanese chests?

Mr. Ghosh.—3 or 4 annas lower than Luralda.

President.—How do they compare in quality with European chests?

Mr. Ghosh.—In outward appearance you cannot notice any difference but there is a belief that they are not as strong as Luralda.

President.—This is the first time that the import of Japanese chests has been brought to our notice.

Mr. Ghosh.—I am certain they are imported. Many Indian companies have been using Japanese chests during the last two years.

President.—Can you give us any idea of the extent of import of Japanese chests?

Mr. Ghosh.—I can give you the price of chests which have been sold by the Jalpaiguri Trading Company, and the exact number sold.

President.—You say they sell at a lower rate than Luralda and on the whole they are considered by the tea trade to be not strong?

Mr. Ghosh.—That is so. The point is that the lead lining in these chests is very thin and that is one of the reasons how they can sell at a cheap price. That is only 1½ oz.

President.—Have you had any instances in which attempts have been made by imported chests to undersell in regard to your own gardens?

Mr. Ghosh.—There has been competition between Japanese and Luralda and Hercules chests, but so far as our mills are concerned it started only a few years ago. This year there has been one specific instance in which the companies told me that we could not expect a higher price than Luralda chests.

President.—That is only business. This year the price of imported chests is rather low. Formerly it was about Rs. 4-4-0 to Rs. 4-8-0 and now it is about Rs. 3-4-0 to Rs. 3-8-0.

Dr. Matthai.—Do the Indian companies generally buy Luralda?

Mr. Ghosh.—Not necessarily; Luralda, Hercules and so on.

Dr. Matthai.—How does Luralda compare with other imported boxes?

Mr. Ghosh.—Luralda is cheaper than Venesta and Hercules.

Dr. Matthai.—Do you know the class of boxes known as *Serdang*?

Mr. Ghosh.—No.

President.—The imports from Japan do not appear to be very considerable at present.

Mr. Ghosh.—But they do find their way into Jalpaiguri in large numbers.

President.—The supply locally is perhaps large in proportion to the supply in the whole of India.

Mr. Ghosh.—That is so. The chief difficulty with these boxes is that they sell at a very cheap price.

Dr. Matthai.—Has this Banking Corporation with which you deal any business dealings with Japan?

Mr. Ghosh.—No. It is a very flourishing bank and perhaps it is the only Mofussil Bank which has been contemplated to be included in the Reserve Bank.

President.—I understand you do not allege that the imported chest is sold at a very low rate mainly with the idea of destroying the Indian infant industry?

Mr. Ghosh.—That will certainly be the result if they go on selling at Rs. 3-4-0.

President.—It has been alleged by one of the companies who appeared before us that there was something in the way of a conspiracy on the part of foreign importers to sell at such a rate that whatever the Indian manufacturer quoted, they would under-quote with the intention of completely destroying the Indian industry and then raising their own prices. We have not been able to find a great deal of evidence in support of this. In fact

one of the importers who gave evidence before us said that he would be sorry to see the Indian industry disappear.

Mr. Ghosh.—I have got no definite information but I cannot possibly account for the sudden drop in prices from Rs. 4-8-0 to Rs. 3-4-0.

President.—Would it be accounted for by the fact that a large number of new mills have been started in Finland and the output has increased?

Mr. Ghosh.—Finland exports the largest number of tea chests but I do not think there is much difference in price between last year and this year in Finland.

President.—There are a large number of mills there which are now working to their full capacity. The information we have is that apparently some years ago a mill, say of a fair size, in Finland turned out 3,000 to 3,500 tons a year of ply wood whereas a new one will turn out up to 9,000 tons and that might account for the reduction in price to some extent.

Mr. Ghosh.—To some extent perhaps that will be the explanation.

President.—From 1923 to 1925 the value of imports from Finland was—Rs. 4,18,000, Rs. 10,97,000 and Rs. 14,27,000, so it looks rather as if their production is increasing rapidly.

Dr. Matthai.—As a matter of fact the bulk of the chests that are imported from the United Kingdom and other places come from Finland, as ply wood.

Mr. Ghosh.—Part of it is used for other purposes than tea chests.

Sales organisation.

Dr. Matthai.—What are your arrangements with the Jalpaiguri Banking Corporation about sales. Do you give them a commission?

Mr. Ghosh.—Yes.

Dr. Matthai.—How much does the commission work out to?

Mr. Ghosh.—That is very small; it has not been settled yet, but they will be satisfied with a very small amount.

Dr. Matthai.—Can you give me some sort of idea of the rate. Would it be 5 per cent.?

Mr. Ghosh.—Certainly not more than that. During this year I think they will accept 2½ per cent.

Dr. Matthai.—What kind of trade do they generally do?

Mr. Ghosh.—Banking is their main business. They also deal in tea garden stores which tea companies require.

Dr. Matthai.—So that it would be rather satisfactory from your point of view to work through them?

Mr. Ghosh.—Yes. Some of the directors of the bank are also directors of this company.

Plant.

President.—As regards your plant, your powerhouse, your boilers and so on they are designed I suppose not only for the veneer mill but also designed to provide power for the lead mill and saw mill?

Mr. Ghosh.—Yes.

President.—They would be perhaps rather too large for the veneer mill alone.

Mr. Ghosh.—I do not think so because there must be a saw mill with a veneer mill and there is only the question of the lead mill.

President.—Why do you say there must be a saw mill?

Mr. Ghosh.—You must have your battens and things.

President.—These can be prepared by small circular saws or multiple saws.

Mr. Ghosh.—You can do that, but unless there is a saw mill there are practical difficulties.

President.—We find for instance at Mukong Selek where the Assam Railways and Trading Company are working they have no saw mills there on the spot.

Mr. Ghosh.—Don't they make their own battens at Mukong Selek?

Dr. Matthai.—They have got a saw mill at Meckla.

President.—But if you were to lay down your power plant for the veneer mill a smaller plant would suffice?

Mr. Ghosh.—There cannot be a very small plant because we have got five lathes and I have given you the horse power and other description in my replies and you can compare that with the plant of the Assam Saw Mills.

President.—You have got your by-products?

Mr. Ghosh.—That is a completely different thing; it is not in the same place, it is at some distance and has got its separate engine, boilers and so on.

Dr. Matthai.—What precisely are the sort of things that you produce in your by-product plant?

Mr. Ghosh.—We are not manufacturing anything yet. The Buxa Mill were manufacturing catechu in large quantities and they had in contemplation many other things because this by-product plant is a most up-to-date plant.

Dr. Matthai.—At present you are manufacturing only two sizes of tea chests 19×19×24 and 19×19×22?

Mr. Ghosh.—Smaller chests are made from damaged big chests.

Dr. Matthai.—So that it is an advantage to have these smaller chests because it gives you some use for the plies found unsuitable for the bigger sizes?

Mr. Ghosh.—Yes; smaller chests are in demand because tea companies pack their dust in smaller chests.

Sales.

Dr. Matthai.—I take it when you say price f.o.r. works in 1926-27 you mean the price that you have realized since you started operations, that is since April 1927?

Mr. Ghosh.—Yes.

Dr. Matthai.—Which is the busiest season for sales of tea chests?

Mr. Ghosh.—From the middle of May but generally from June to end of August.

Dr. Matthai.—Then after that there is a lull?

Mr. Ghosh.—Yes.

Dr. Matthai.—But you would be producing chests I suppose?

Mr. Ghosh.—Yes. The former company used to manufacture most of their chests in the winter season—that is from October onwards. That was necessary on account of the climatic condition because rains are rather heavy here.

Dr. Matthai.—These companies which buy tea chests from you are situated in and round Jalpaiguri?

Mr. Ghosh.—Except some companies which have also got their head office at Jalpaiguri but their gardens in Assam.

Dr. Matthai.—When you sell chests to them, you deliver at the garden?

Mr. Ghosh.—Yes.

Dr. Matthai.—What exactly is the arrangement?

Mr. Ghosh.—There are some big tea gardens which are situated two or three miles from our factory and they send their bullock carts to the factory.

Dr. Matthai.—They bear the cost of transport?

Mr. Ghosh.—Yes.

Dr. Matthai.—What is the arrangement in regard to other companies?

Mr. Ghosh.—We undertake to send the chests and recover the costs from them afterwards.

Dr. Matthai.—Of course your customers are all in the Dooars District.

Mr. Ghosh.—Mostly. There are some in Darjeeling.

Dr. Matthai.—Practically the Dooars District is your market.

Mr. Ghosh.—Yes. Some of the tea gardens are in Assam and some in Darjeeling, but most of the gardens are in the Dooars District.

Dr. Matthai.—Do you expect to sell to any Indian tea gardens in Lower Assam?

Mr. Ghosh.—There would be no objection. I don't think that will be necessary, because the Indian Companies consume large quantities of chests.

Dr. Matthai.—They are all in the Dooars District.

Mr. Ghosh.—Yes.

Dr. Matthai.—Do you expect to find the market for the whole of your output in the Dooars District. Supposing you worked up to an output of 3 lakhs of boxes, would you be able to dispose of the whole of that output in the Dooars District?

Mr. Ghosh.—No, but a very large proportion of it will be consumed by the Dooars District.

Dr. Matthai.—Are there any tea gardens run by Indian Companies in the Darjeeling area?

Mr. Ghosh.—Yes.

Dr. Matthai.—How would you stand with regard to Darjeeling?

Mr. Ghosh.—There are four or five Companies having their gardens in the Darjeeling area.

Dr. Matthai.—If you take the freight from Calcutta to Darjeeling and from Jalpaiguri to Darjeeling, how do the freights compare?

Mr. Ghosh.—Not as far as Darjeeling proper, but the district of Darjeeling—the sub-division of Siliguri generally; the freight to that area will be considerably less.

Dr. Matthai.—The freight from Jalpaiguri would be considerably less.

Mr. Ghosh.—Yes.

Dr. Matthai.—So that you are in a position of advantage as far as that is concerned.

Mr. Ghosh.—Yes.

President.—Do you work your timber departmentally or do you have contractors to extract your timber?

Mr. Ghosh.—So far as our work in this area is concerned, we are doing it under a contract system.

President.—Do you find that more economical?

Mr. Ghosh.—Yes.

President.—You don't do any departmental work at all.

Mr. Ghosh.—No, because the former Company experienced much difficulty in that direction.

President.—So far as we are able to judge by the evidence we have had the contract system of working is cheaper.

Mr. Ghosh.—Yes.

Capital organisation.

Dr. Matthai.—I should like to get some idea of the way in which your Company is financed. What is your share capital?

Mr. Ghosh.—Do you want our share capital which we have been able to realise?

Dr. Matthai.—I want your paid up capital.

Mr. Ghosh.—The Tea Companies purchased about Rs. 70,000 worth of shares fully paid up.

Dr. Matthai.—That is the whole of your paid up shares.

Mr. Ghosh.—No. Besides outsiders have also subscribed some shares to the value of Rs. 1½ lakhs and we have issued calls Rs. 5 and Rs. 3 and another call has recently been issued.

Dr. Matthai.—All the plant that you have bought from the Buxa Timber and Trading Company and the Bengal Lead Mills Company, was financed by your share capital?

Mr. Ghosh.—No.

Dr. Matthai.—You had to raise a loan.

Mr. Ghosh.—Yes, as a matter of fact about Rs. 70,000 was paid before the Company was started.

Dr. Matthai.—What is the total amount of paid up shares that you have now?

Mr. Ghosh.—That is rather small, because we have not been able to sell our shares as we expected. I can give you the exact figure afterwards.

Dr. Matthai.—I should like to have them if you don't mind and you might give me also the amount of loans that you have raised.

Mr. Ghosh.—Yes.

Dr. Matthai.—You raise your working capital, you say at a rate of 9 per cent.

Mr. Ghosh.—Mostly at 9 per cent. Recently we have been compelled to raise some loans at a higher rate. Previously the entire money was raised at 9 per cent.

Dr. Matthai.—It is rather a high rate of interest for working capital.

Mr. Ghosh.—That is true, but the local bank could not advance us money at a rate less than that.

Dr. Matthai.—You raised it from a local bank.

Mr. Ghosh.—Yes. The bank did not exactly advance the money to the Company. They advanced it to the directors on their personal liabilities.

Dr. Matthai.—Do you remember the original capital of the Buxa Company?

Mr. Ghosh.—Yes. It was formerly Rs. 10 lakhs and then it was raised to a little above Rs. 20 lakhs. This was the subscribed Capital. The authorised Capital was 50 lakhs. The Bengal Lead Mills had a subscribed Capital of 5 lakhs.

Dr. Matthai.—When exactly was the Company floated?

Mr. Ghosh.—1917, I believe.

Dr. Matthai.—And the Bengal Lead Mills?

Mr. Ghosh.—At the same time. They were four Companies, the Bengal Lead Mills, the Buxa Timber and Trading Company, the Water Works Limited and the By-products Limited. Sometime after, the Water Works Limited and the By-products Limited were amalgamated with the Buxa Timber Trading Company, but the Bengal Lead Mills remained a separate Company.

Dr. Matthai.—You were able to purchase the machinery and plant and all the fixed properties of the two companies.

Mr. Ghosh.—Yes of all the Companies.

Dr. Matthai.—Including this light railway for Rs. 2,65,000.

Mr. Ghosh.—Yes, that has been rather very cheap, because they spent a very large amount over these things. If we could secure capital with the

special advantages which we have, we are absolutely sure of success, but as regards veneer there is this difficulty.

President.—What difficulty?

Mr. Ghosh.—I mean the manufacturing cost and the price.

President.—You say you are selling your tea chests at a loss.

Mr. Ghosh.—Yes.

Working capital.

Dr. Matthai.—With regard to your working capital practically what you are suggesting is that you want a rupee per box as working capital.

Mr. Ghosh.—We don't want so much because we think the cost which we have incurred this year will be considerably reduced.

Dr. Matthai.—In reply to question 12 you say: "The Company would require a working capital of Rs. 3 lakhs according to its present output and a working capital of Rs. 6 lakhs for the output equivalent to its full capacity." I take it that your present output is only a third of your full capacity.

Mr. Ghosh.—By its "present output" has been meant 300 chests per day.

Dr. Matthai.—How many rupees working capital per box would you require?

Mr. Ghosh.—Rs. 3 lakhs to finance 90,000 boxes. Rs. 3 lakhs would be quite sufficient to finance 1,50,000 boxes.

Dr. Matthai.—How is that?

Dr. Matthai.—You require more materials, more labour and so on.

Mr. Ghosh.—Not more labour and not more power.

Dr. Matthai.—You certainly require more labour.

Mr. Ghosh.—The contractor will have to be paid a little bit more. I don't think there will be a very great difference.

Claim for protection.

President.—As regards your claim for protection you have two alternative schemes. One is a bounty of 9 pies per sq. ft. or in the alternative you say a protection of 15 to 20 per cent. without any refund for some years.

Mr. Ghosh.—Yes.

President.—When you say protection of 15 or 20 per cent. do you mean 15 or 20 per cent. over and above the revenue duty?

Mr. Ghosh.—Yes.

President.—The present duty is 15 per cent. so that really what you are asking for is either 30 or 35 per cent.

Mr. Ghosh.—Yes.

President.—That is to say you are asking for a higher scale of protection than others.

Mr. Ghosh.—I realise it is high. I am not so much for protection by duty.

President.—You say that on the whole you prefer a bounty.

Mr. Ghosh.—Yes.

President.—For what reason would you prefer a bounty?

Mr. Ghosh.—As. 8 or annas 9 a chest.

President.—Why do you prefer the bounty?

Mr. Ghosh.—Because it would not at all affect the price of the imported chests.

President.—Do you mean to say that it would not impose any burden on the consumer?

Mr. Ghosh.—It would not affect the tea trade. We are very much interested in the tea trade.

President.—Do you consider that a protective duty on tea chests would affect seriously the power of competition of the tea trade?

Mr. Ghosh.—I don't believe that.

President.—Even if we put on a protective duty, say, 30 per cent. on the panels, it would be an increase of about As. 4 per chest.

Mr. Ghosh.—Yes.

President.—As. 4 per chest taking each chest as holding 100 lbs. of tea, it would come to Rs. 1,000 a year, for a garden producing 4 lakhs of lbs. of tea annually. Not a very big charge.

Mr. Ghosh.—I would at once ask for that if I were sure that all our mills were able to supply all our tea gardens with chests. But we feel that we have yet to depend on some imported chests.

President.—In what way would that make a difference in your view if your mills were able to satisfy the whole demand of the industry.

Mr. Ghosh.—Then there would not have been any occasion to purchase imported chests.

President.—The industry will still be faced with the burden of a protective duty.

Mr. Ghosh.—The tea industry will not be affected.

President.—Supposing 30 lakhs of boxes were required and the Indian mills can turn out all that, then you say you would have no objection to a duty.

Mr. Ghosh.—Yes.

President.—On the assumption for the moment that the price of the Indian chest is regulated by the price of the imported chests, even if they could turn out 30 lakhs of chests, the tea garden would still have to pay the extra duty.

Mr. Ghosh.—The Indian Companies would not regulate their price according to the imported price.

President.—The price will be regulated by the internal competition.

Mr. Ghosh.—Yes.

President.—Then there would be no object in putting any duty at all. If the Indian Companies were producing 30 lakhs of chests there would not be really any point in protecting the industry. If we did protect the industry their price would naturally go up by the amount of protection.

Mr. Ghosh.—Unless there is some protection this industry cannot go on.

President.—I was trying to see why it was that you thought that the bounty would be preferable to an import duty.

Mr. Ghosh.—My reason is this that at present we must buy some imported chests and if imported chests are made dearer, then that will ultimately affect the tea trade.

President.—Would it affect the tea trade? I was just explaining to you an extra As. 4 import duty would mean, perhaps Rs. 1,000 extra expenditure for a tea garden. Take a garden of 1,000 acres. What extra expenditure would it mean?

Mr. Ghosh.—Do you mean a garden with a plantation of 1,000 acres?

President.—What would you consider a big garden?

Mr. Ghosh.—1,000 acres is a big garden.

President.—What is the average output of an established garden?

Mr. Ghosh.—1,000 acres full bearing would give you something like 12,000 maunds of tea a year.

President.—Do you get 12 maunds an acre?

Mr. Ghosh.—Take it at 8,000 maunds of tea.

President.—8,000 maunds of tea is equal to 6,40,000 lbs.

Mr. Ghosh.—Yes.

President.—100 lbs. of tea go in a chest. That means 6,400 chests. At As. 4 a chest it comes to Rs. 1,600.

Mr. Ghosh.—Yes.

President.—The value of the output of 6,40,000 lbs. of tea would be somewhere about 6½ lakhs

Mr. Ghosh.—Taking at this figure it cannot affect the tea trade at all, because even if it had been 3,200, it cannot affect the tea trade. We know the expenditure of tea gardens. We have got practical experience in running tea gardens. Rs. 1,600 or Rs. 3,200 absolutely doesn't come to much.

President.—If that is your conclusion, does it not destroy the objection to an import duty?

Mr. Ghosh.—That is true. But there are some Directors who think that there should not be any difficulty in the way of tea trade. Personally speaking I am absolutely sure Rs. 1,600 or Rs. 3,200 or even Rs. 5,000 cannot affect the Company with 1,000 acres.

President.—Really your point is this that a portion of the tea trade on theoretical or sentimental grounds would consider that any import duty however small would be undesirable. That is really what it comes to.

Mr. Ghosh.—Yes.

President.—Supposing it was possible to so arrange the duty that there was no impost on the tea.

Mr. Ghosh.—There could not be any objection.

President.—We have put it to the other Companies and also to the Tea Association a scheme somewhat on these lines. On the linings and fittings 15 per cent. import duty is maintained. No rebate can be obtained on that and both the imported chests and chests manufactured here stand on the same level. If you take off the duty, the local chests would be no better off. As regards the panels on which at present a rebate can be claimed on re-export, abolish the import duty altogether. In place of that import duty you put on so much export duty as is sufficient to protect the Indian chest trade. The export duty would for convenience be calculated at so much per 100 lbs. of tea. Let us suppose that it came to As. 4 or As. 5. Under the Indian Tea Cess Act a cess is levied on the export of tea and made over to the Tea Cess Committee for the benefit of the industry. This cess stands at present at As. 6 per 100 lbs. but it can be raised to As. 8 per 100 lbs.

Dr. Matthai.—The export duty is to be levied on tea packed in foreign chests.

Mr. Ghosh.—Yes.

President.—The tea exported in Indian made chests will be exempted from the export duty. Suppose that of the amount realised by the export tax so much—as represents the additional protective duty—is made over to the Tea Cess Committee by way of contribution and the tea cess which comes up for revision next March is correspondingly reduced. You as a Director of several Tea Companies would perhaps give us your opinion as to whether there would be strong objection on the part of the tea trade to a scheme based on those lines.

Mr. Ghosh.—I don't think there should be any objection.

President.—Would that sort of scheme appeal to you?

Mr. Ghosh.—Yes.

President.—Would that be preferable to a system of bounties?

Mr. Ghosh.—What are the objections to a bounty?

President.—If we recommend a bounty on the manufacture of tea chests, we are asking the Legislative Assembly to sanction an indefinite charge on the public revenues, because if the bounty is successful, the number of chests manufactured in India will steadily increase. So that subject of course to a maximum calculated on the 30 lakhs of chests which could be used in the tea trade, Government if committed to a scheme of bounties are faced with rather an indefinite liability.

Mr. Ghosh.—Yes, that is true.

President.—On the other hand we would be grateful for your opinion on this point. It occurred to us that perhaps a system under which while the foreign box was liable to an export duty and the Indian box was exempt from such duty, might have a more direct effect in inducing people to buy Indian boxes than a bounty.

Mr. Ghosh.—I entirely agree with you.

President.—As we know theoretically an export duty of As. 4 on a foreign box and a bounty of As. 4 on the Indian made box is the same. But we have to consider the psychological effect. Whereas one system might induce people to buy the Indian made box, the other system might not be quite so effective.

Mr. Ghosh.—Yes.

President.—Would you consider that alternative as more desirable?

Mr. Ghosh.—This appears to me to be a very good scheme. I would prefer this to the bounty system, because certainly it would have the moral effect; it would be some sort of advertisement. People would be buying Indian chests on this ground alone that it would save them from the export duty.

Rajgarh Tea Company, Limited.

WRITTEN.

Letter, dated 2nd June 1927.

I understand through the *Statesman* that the views of persons interested in the affairs of ply wood mills would be welcomed by the Tariff Board. I therefore have the honour to place before you my ideas, as an old shareholder in the Assam Saw Mills and Timber Company, Limited.

- (1) The consumption of ply wood in Europe has expanded enormously during the last few years. That if this expansion continues in the future at the same rate, high prices for tea chests of this type and ply wood boards will be a natural result in a very few years.
- (2) In the meantime, the ply wood factories of Assam cannot be economically successful owing to physical and geographical difficulties. Many of these difficulties have been largely overcome; and if the industry survives, will in the normal course be able to work on a sound basis.
- (3) When the cost of the imported wood has risen, the resources of the local mills would, if still in existence, prove of great value to the Government of Assam, not only for tea chest parts but for other ply wood requirements on an improving demand.
- (4) The suggestion of giving a bounty to local mills per square foot of ply wood produced is worthy of the consideration of the Board. As an alternative, a properly adjusted tax on imported ply wood which would enhance the demand for the local produce.
- (5) Should the assistance given take the form of a bounty, I suggest that it should be sufficiently heavy to be of real help to the local industry and not merely a cause of further competition.
- (6) I suggest that it is in the interest of the Government of Assam to keep alive this valuable industry, at least for four or five years, when the foreign producers of ply wood boards will find a more profitable field for their output.

Indian Tea Association, Calcutta.

A.—WRITTEN.

(1) Letter, dated the 2nd June 1927.

The Committee of this Association have noted, from the Government of India's 'Tariffs' Resolution No. 483-T., dated 26th May 1927, that it has been decided to refer the following questions to the Tariff Board:—

- (1) whether, having regard to the principles laid down in the resolution adopted by the Legislative Assembly on the 16th February 1923, the ply wood and tea chests industry should be protected;
- (2) if so, in what form and for what period protection should be given;
- (3) if not, whether in view of the fact that tea chests and lead sheets for tea chests are ordinarily imported for the purpose of re-export, the existing import duty of 15 per cent. should be continued.

I am instructed to inform you that this Association is strongly opposed to the proposal that the ply wood and tea chests industry in India should be protected, and they will be glad to give evidence in support of their opposition. It is requested, however, that adequate notice be given to this Association to allow the Committee to collect the essential evidence they desire to place before your Board.

(2) Letter, dated the 16th July 1927.

I am directed by the Committee of the Indian Tea Association to acknowledge, with thanks, the receipt of your letter No. 529, dated 22nd June 1927, (1) enclosing copy of the representations submitted to your Board by the Assam Saw Mills and Timber Company, Limited, and the Assam Railways and Trading Company, Limited, (2) intimating that your Board hopes to take the oral evidence of this Association in Calcutta before the middle of August 1927, and (3) asking for any written representation from this Association to be lodged with you on or before the 21st July 1927, all in connection with the forthcoming enquiry into the ply wood and tea chest making industry in India regarding which the following views are now submitted for the consideration of your Board.

2. A few years ago, the Government of India increased the duty on imported tea chests from 2½ per cent. to 15 per cent. and, from this duty, the coffers of the Government of India received revenue to the extent of over Rs. 11 lakhs on an average per annum. In this connection it has to be noted that tea chest parts are admitted duty free into Ceylon while Java only levies a duty of 6½ per cent. on complete chest parts. These two countries are strong competitors with Indian teas, and this Association must protest most strongly against any taxation which places Indian tea producers at a disadvantage with other producing countries. From that point of view, this Association would respectfully suggest for consideration that it is not a question of the enhancement of duty but rather a question as to whether the present import duty should not be removed altogether and at once. Any enhancement in the present duty must place Indian tea producers at a further disadvantage with their competitors.

3. The local industries on whose behalf the Government of India has instituted this enquiry are (1) the Assam Saw Mills and Timber Company, Limited, and (2) the Assam Railways and Trading Company, Limited whose operations as their name implies, are conducted in Assam. Prior to the recent removal of the export duty of Re. 1-8 per 100 lbs. of tea exported from this country, the Managing Agents of the Assam Saw Mills and Timber

Company, Limited, petitioned the Assam Government, in April 1926, for support to their contemplated application to the Tariff Board for the remission by the Imperial Government of that export duty in respect of all teas packed in boxes manufactured in India of Indian timbers. Now that the export duty has been withdrawn it is noted that these local industries desire assistance in another form, namely, either (1) by means of a bounty of 4 annas per chest to the manufacturers of tea boxes in India, plus the disallowance of any drawback of import duty on imported chests when re-exported, or, alternatively (2) by the disallowance of drawback of import duty and an increase of that import duty from 15 per cent. to 25 per cent. Regarding (1) the suggested bounty of 4 annas per chest, this Association has no objections to offer, although it is doubtful whether such a bounty will be found sufficient to make the Assam Saw Mills and Timber Company, Limited, self-supporting, while in the case of the Assam Railways and Trading Company, Limited, it will be seen from their letter of the 14th June 1927, to your Board that 4 annas per chest will not suffice to make them self-supporting and they suggest no less a bounty than 9 annas per chest for this purpose. But as regards (2) above this Association holds very strong views (a) against the suggested disallowance of the drawback of import duty when chests are re-exported and (b) against any enhancement of the present duty.

4. At a meeting in March 1926 with the General Committee of this Association representatives of the Managing Agents of the Assam Saw Mills and Timber Company, Limited, explained the position of that company which they said was capable of turning out up to 500,000 boxes annually, these boxes being, with the exception of the fittings and lead linings, wholly the product of Assam. The Assam Government had reduced the royalty from Rs. 1,01,000 to Rs. 37,000 for 1926 and the support of the tea industry had been sought to keep the company in existence.

5. In their written representations, to the President of the Tariff Board, which were forwarded with their letter, dated 17th April 1926, to the Finance Member of the Assam Government, the Managing Agents of the Assam Saw Mills and Timber Company, Limited, indicated that at the maximum, the Brahmaputra Valley, under the most favourable circumstances, could only supply 15 lakhs of boxes per annum but, to attain this, considerable additional capital would require to be raised. In paragraph 13 of the same company's letter, dated 9th June 1927, to your Board it is stated that their costs, on varying outturn, will be as follows:—

- (1) Rs. 3-7-0 per box on an outturn of 300,000 boxes.
- (2) Rs. 3-4-1 per box on an outturn of 400,000 boxes.
- (3) Rs. 3-1-9 per box on an outturn of 500,000 boxes.

These figures, they state, are based on a Timber Royalty of pies 6 per cubic foot, but should the Assam Government raise the rate of royalty to anna 1 pies 6 per cubic foot—as may be done from July 1927, in accordance with the terms of the lease,—the above costs would be one anna higher. In this connection it should be noted that, on page 18 of the appendix to their letter, dated 17th April 1926, to the Finance Member of the Government of Assam, Messrs. Bird & Co. as Managing Agents of the Assam Saw Mills and Timber Company, Limited, stated that they were then paying a royalty of 6 pies per cubic foot and that this royalty was due to be increased to anna 1 pies 6 in July of that year (1926) and to annas 3 in 1931. In their letter of 9th June 1927 to your Board the Managing Agents state that the royalty may under their lease be raised to anna 1 pies 6 per cubic foot from July this year (1927) but they make no mention of any increase to 3 annas per cubic foot in 1931 which would increase their cost to the present selling price of their competitors even on a production of 500,000 boxes.

6. For the purpose of this letter, tea production in Assam-Bengal and South India, may be taken as 370 million pounds. Proceeding on the assumption that 10 per cent. of that tea production is packed in wooden chests, we have 333 million pounds of tea still to be packed in patent chests. The

average quantity of tea in a chest may be taken as 100 lbs. which brings the following position into prominence:—

	Chests per annum.
Number of chests still required to carry 333 million pounds of tea	3,330,000
The Assam Saw Mills and Timber Company, Limited, can manufacture . . . 500,000	
Other veneer concerns can manufacture, say	100,000
	600,000
Leaving a balance still to be imported	2,730,000

This means that the Indian producers can only supply 18 per cent. of the tea industry's requirements in tea chests.

Moreover the Mills in India are producers of ply-wood shooks only, and in order to sell complete chests to customers, they secure lead linings and fittings from outside sources which are at present restricted to mills belonging to competitors, there being no independent source capable of turning out sufficient quantities of fittings and linings for 300,000 chests, let alone 500,000 chests.

7. Reference is made in paragraph 5 of this letter to the statement by Indian box producers that an outturn of 5 lakhs of boxes would produce a tea chest at a cost of Rs. 3-1-9 which stood to be increased to the extent of any rise in the present royalty. The cost of an imported box (24" x 19" x 19") may be taken as 4s. 6d. Calcutta (at exchange 1s. 6d.=Rs. 3) and the veneers alone should be reckoned as costing about 2s. 9d. (Re. 1-13-4). The Indian box producer at present only pays the duty on the linings and parts when imported, as he has not to pay any duty on veneers which, in the case of the imported box, works out at annas 4 pies 4 per chest. In this connection it might perhaps be useful to point out here that in paragraph 4 of their letter, dated 14th June 1927 to the Tariff Board, the Assam Railways and Trading Company, Limited, Margherita, allege that the price of the imported tea chest has been cut in order to drive the Indian industry off the market as "there does not appear to have been any corresponding drop in the price of imported ply boards other than tea chests or in that of imported articles made from plywood." This statement is incorrect as the Indian Tea Association can produce clear evidence that in 1926, the year in which the largest reduction in the price of the imported tea chest took place, the price of ply wood boards was also correspondingly reduced.

8. It will be seen that, notwithstanding the present protection enjoyed in the form of the existing 15 per cent. import duty, the Indian box industry, while only having to pay the cost of the import duty on imported linings and parts, can, under the most favourable circumstances which may not materialise, produce a box at a figure which cannot be less than Rs. 3-1-9 as compared with the Rs. 3 price of the imported box saddled as it is with all these extra costs. On the other hand, any increased duty on imported tea chests and relative parts would increase the Indian box producers' costs as well, as they would obviously require to pay the increased rate on the imported parts purchased by them. Any protection, therefore, to the local box industry would not only hit the tea industry unfairly, by increasing the cost of the boxes imported for the carriage of its production, but would at the same time defeat the object for which such protection is now sought.

9. The Committee take this opportunity to emphasise the point that the Indian tea industry is not a monopoly but has to face competition from other countries, a point which was realised when the export duty was withdrawn recently. This Association is not unsympathetic to the desires of Indian producers to supply a larger part of the tea industry's needs in the matter

Company, Limited, petitioned the Assam Government, in April 1926, for support to their contemplated application to the Tariff Board for the remission by the Imperial Government of that export duty in respect of all teas packed in boxes manufactured in India of Indian timbers. Now that the export duty has been withdrawn it is noted that these local industries desire assistance in another form, namely, either (1) by means of a bounty of 4 annas per chest to the manufacturers of tea boxes in India, plus the disallowance of any drawback of import duty on imported chests when re-exported, or, alternatively (2) by the disallowance of drawback of import duty and an increase of that import duty from 15 per cent. to 25 per cent. Regarding (1) the suggested bounty of 4 annas per chest, this Association has no objections to offer, although it is doubtful whether such a bounty will be found sufficient to make the Assam Saw Mills and Timber Company, Limited, self-supporting, while in the case of the Assam Railways and Trading Company, Limited, it will be seen from their letter of the 14th June 1927, to your Board that 4 annas per chest will not suffice to make them self-supporting and they suggest no less a bounty than 9 annas per chest for this purpose. But as regards (2) above this Association holds very strong views (a) against the suggested disallowance of the drawback of import duty when chests are re-exported and (b) against any enhancement of the present duty.

4. At a meeting in March 1926 with the General Committee of this Association representatives of the Managing Agents of the Assam Saw Mills and Timber Company, Limited, explained the position of that company which they said was capable of turning out up to 500,000 boxes annually, these boxes being, with the exception of the fittings and lead linings, wholly the product of Assam. The Assam Government had reduced the royalty from Rs. 1,01,000 to Rs. 37,000 for 1926 and the support of the tea industry had been sought to keep the company in existence.

5. In their written representations, to the President of the Tariff Board, which were forwarded with their letter, dated 17th April 1926, to the Finance Member of the Assam Government, the Managing Agents of the Assam Saw Mills and Timber Company, Limited, indicated that at the maximum, the Brahmaputra Valley, under the most favourable circumstances, could only supply 15 lakhs of boxes per annum but, to attain this, considerable additional capital would require to be raised. In paragraph 13 of the same company's letter, dated 9th June 1927, to your Board it is stated that their costs, on varying outturn, will be as follows:

(1) Rs. 3-7-0 per box on an outturn of 300,000 boxes.

(2) Rs. 3-4-1 per box on an outturn of 400,000 boxes.

(3) Rs. 3-1-9 per box on an outturn of 500,000 boxes.

These figures, they state, are based on a Timber Royalty of pies 6 per cubic foot, but should the Assam Government raise the rate of royalty to anna 1 pies 6 per cubic foot—as may be done from July 1927, in accordance with the terms of the lease,—the above costs would be one anna higher. In this connection it should be noted that, on page 18 of the appendix to their letter, dated 17th April 1926, to the Finance Member of the Government of Assam, Messrs. Bird & Co. as Managing Agents of the Assam Saw Mills and Timber Company, Limited, stated that they were then paying a royalty of 6 pies per cubic foot and that this royalty was due to be increased to anna 1 pies 6 in July of that year (1926) and to annas 3 in 1931. In their letter of 9th June 1927 to your Board the Managing Agents state that the royalty may under their lease be raised to anna 1 pies 6 per cubic foot from July this year (1927) but they make no mention of any increase to 3 annas per cubic foot in 1931 which would increase their cost to the present selling price of their competitors even on a production of 500,000 boxes.

6. For the purpose of this letter, tea production in Assam-Bengal and South India, may be taken as 370 million pounds. Proceeding on the assumption that 10 per cent. of that tea production is packed in wooden chests, we have 333 million pounds of tea still to be packed in patent chests. The

average quantity of tea in a chest may be taken as 100 lbs. which brings the following position into prominence:—

	Chests per annum.
Number of chests still required to carry 333 million pounds of tea	3,330,000
The Assam Saw Mills and Timber Company, Limited, can manufacture	500,000
Other veneer concerns can manufacture, say	100,000
	600,000
Leaving a balance still to be imported	2,730,000

This means that the Indian producers can only supply 18 per cent. of the tea industry's requirements in tea chests.

Moreover the Mills in India are producers of ply-wood shooks only, and in order to sell complete chests to customers, they secure lead linings and fittings from outside sources which are at present restricted to mills belonging to competitors, there being no independent source capable of turning out sufficient quantities of fittings and linings for 300,000 chests, let alone 500,000 chests.

7. Reference is made in paragraph 5 of this letter to the statement by Indian box producers that an outturn of 5 lakhs of boxes would produce a tea chest at a cost of Rs. 3-1-9 which stood to be increased to the extent of any rise in the present royalty. The cost of an imported box (24"×19"×19") may be taken as 4s. 6d. Calcutta (at exchange 1s. 6d.=Rs. 3) and the veneers alone should be reckoned as costing about 2s. 9d. (Rs. 1-13-4). The Indian box producer at present only pays the duty on the linings and parts when imported, as he has not to pay any duty on veneers which, in the case of the imported box, works out at annas 4 pies 4 per chest. In this connection it might perhaps be useful to point out here that in paragraph 4 of their letter, dated 14th June 1927 to the Tariff Board, the Assam Railways and Trading Company, Limited, Margherita, allege that the price of the imported tea chest has been cut in order to drive the Indian industry off the market as "there does not appear to have been any corresponding drop in the price of imported ply boards other than tea chests or in that of imported articles made from plywood." This statement is incorrect as the Indian Tea Association can produce clear evidence that in 1926, the year in which the largest reduction in the price of the imported tea chest took place, the price of ply wood boards was also correspondingly reduced.

8. It will be seen that, notwithstanding the present protection enjoyed in the form of the existing 15 per cent. import duty, the Indian box industry, while only having to pay the cost of the import duty on imported linings and parts, can, under the most favourable circumstances which may not materialise, produce a box at a figure which cannot be less than Rs. 3-1-9 as compared with the Rs. 3 price of the imported box saddled as it is with all these extra costs. On the other hand, any increased duty on imported tea chests and relative parts would increase the Indian box producers' costs as well, as they would obviously require to pay the increased rate on the imported parts purchased by them. Any protection, therefore, to the local box industry would not only hit the tea industry unfairly, by increasing the cost of the boxes imported for the carriage of its production, but would at the same time defeat the object for which such protection is now sought.

9. The Committee take this opportunity to emphasise the point that the Indian tea industry is not a monopoly but has to face competition from other countries, a point which was realised when the export duty was withdrawn recently. This Association is not unsympathetic to the desires of Indian producers to supply a larger part of the tea industry's needs in the matter

of tea chests, but it is felt that no solid grounds can be advanced for protection to the local industry. It is natural that the Government of India should be desirous of encouraging indigenous industries, but the Committee of this Association maintain that the ply wood and tea chest making industry in India is only semi indigenous seeing that it produces, in India, only part of the complete articles. At the same time the Government of India must not leave out of account the natural wishes of a large agricultural industry such as tea which desires to obtain its packing materials at as low a price as possible.

10. In conclusion, the Committee would point out that, while under the Indian Customs Regulations it is possible to obtain a refund of 7ths of the duty paid on imported veneers, provided these are exported within two years, it is not possible to obtain this refund on other parts owing to the difficulties of identification.

(3) *Letter, dated the 5th August 1927.*

I am directed by the Committee of this Association to acknowledge, with thanks, the receipt of your letters numbered 632, 636 and 643, dated 27th July, 27th July and 28th July 1927 respectively, and enclosures, in connection with the enquiry being undertaken by your Board into the circumstances of the ply wood and tea chest industry in India.

With the first of these letters you forwarded two copies of each of the Board's questionnaires issued (1) to the manufacturers in India of ply wood and tea chests and (2) to the importers of those articles, and, regarding the list of the latter given in your letter, I am directed to say that the Committee do not know of any other firms likely to be interested. These two questionnaires have been examined by the Committee who have instructed me to inform you that they have no views to submit in regard to any points raised therein. You ask, however, for an expression of opinion from this Association as to the quality of the tea chests manufactured by the local manufacturers, and also as to the suitability of these chests for the requirements of the Indian tea trade. As regards quality, the Committee instruct me to explain that opinions in the trade are divided on this point, but they think it may be stated that certain large consumers are of the opinion that the imported veneer chests are preferable to the indigenous articles. This is probably due to the fact that, with their long experience of the trade's requirements, the home manufacturers are able to produce a chest the timber for which has stood the test of time. It will, of course, be understood by your Board that the above opinion relates only to shooks and battens as the fittings and linings supplied with the chests from the veneer mills in India, are not of their manufacture.

In your letter No. 636 you intimate that the Board proposes to hear the evidence of this Association in the Board's office at No. 1, Council House Street on the 15th August, 1927 at 10-30 A.M. and in connection with your enquiry on the point I am directed to inform you that the day and time suggested are suitable.

With regard to your letter No. 643 intimating that your Board proposes to hear the oral evidence of the importers of tea chests and three ply boards on 17th August 1927 at 10-30 A.M. I have to inform you that the Committee do not know of any firms, other than those you have already addressed, which are likely to be interested in this announcement.

(4) *Letter, dated the 22nd August 1927.*

During the hearing of the evidence of this Association's representatives on the 15th August 1927, your President asked for enquiries to be made regarding the price of tea chests to consumers in Java and Ceylon.

The following telegraphic information has now been received and it is hoped this is the information desired:—

1. *Java*.—19"×19"×24" Venesta chests complete ex Warehouse 2 Guilders 45 Cents, which at the equivalent of 90 Guilders to Rs. 100 = Rs. 2-11-6.
2. *Ceylon*.—The price of similar chests to above is Rs. 3—20 Cents ex Warehouse, equivalent to Rs. 3-3-3.

From further enquiries it has been ascertained that the export duty on tea from Ceylon is 3 cents per pound which is equivalent to Rs. 3 per 100 lbs.

INDIAN TEA ASSOCIATION.

B.—ORAL.

Evidence of Messrs. J. A. MACBEAN and E. R. COLMAN, Vice-Chairman and Member respectively of the Committee of the Indian Tea Association recorded at Calcutta on Monday the 15th August, 1927.

Introductory.

President.—Before we commence your examination this morning, there are one or two points which I want to make quite clear. The first is that in the course of the examination it will be unavoidable to ask you questions which will seem to imply that the Board has definitely decided that the industry qualifies for protection. This, I need hardly say, is not so because we have come to any conclusion as yet, for we cannot come to any conclusion before we have finished the examination of the costs of the companies concerned. We should be sorry if a wrong impression is conveyed by the form in which the questions are put. The other point is that we fully realise the importance of the tea industry to India and the position it occupies in the export market. I wish to add that anything which you may say will receive our fullest consideration.

The general position of the Tea Industry.

Turning first to your letter of the 16th July, 1927, I want to ask you a few questions to elicit the exact position of the tea industry at present. You say "it has to be noted that tea chest parts are admitted duty free into Ceylon, while Java only levies a duty of 6½ per cent. on complete chest parts." On the other hand I think I am correct in saying that in Ceylon there is an export tax on tea.

Mr. Macbean.—There is still an export duty, but I am not sure of the amount. I think it is Rs. 1-8-0 at present.

President.—At one time it was Rs. 3.

Dr. Matthai.—In 1925, it was Rs. 3 per 100 lbs. Unless it has been changed since then, it is Rs. 3 now.

Mr. Macbean.—I understood that it was Rs. 1-8-0, but of course I am not sure of the amount.

President.—As regards the competition with Java, you say that there is a duty of 6½ per cent. on complete tea chest parts. On the other hand, the amount of preference which India enjoys in Great Britain amounts to Rs. 3-4-0 per 100 lbs.

Mr. Macbean.—That is my impression.

President.—So that as regards both Ceylon and Java, the present position is that the Indian tea trade perhaps has some advantage in the matter of Government treatment.

Mr. Macbean.—I suppose it is a question of figures. Java levies a duty of only 6½ per cent. on chest parts imported against the 15 per cent. import duty in India.

President.—The 15 per cent. duty works out at about 7 annas per chest and a chest contains roughly 120 lbs. of tea. That comes to something very small—rather less than a pie.

Mr. Colman.—About that.

President.—It is rather less than the variation in price from auction to auction in the tea sales.

Mr. Macbean.—Yes.

President.—3 farthings a lb. which is the amount of preference enjoyed by India in Great Britain would work out many times more than the duty on the chest.

Mr. Macbean.—Yes.

Dr. Matthai.—The preference you enjoy would come to about Rs. 3-10-0 per 100 lbs.

President.—So far as I am aware, you have a substantial advantage over Ceylon and Java as compared with the existing import duty that you pay.

Mr. Macbean.—Yes, owing to the preference over Java which we enjoy in Great Britain and owing to there being an export duty on tea in Ceylon.

President.—What I want to get at is this that so far as the present position is concerned without dealing with any possibilities of the future, the existing 15 per cent. duty on imported tea chests would not appear really to hit the industry very hard.

Mr. Macbean.—Not if the points referred to are taken into consideration.

President.—You say that the trade is liable to very severe competition from Java and Ceylon. Those two countries are strong competitors with Indian tea.

Mr. Macbean.—Yes.

President.—That was the view which was put forward in the Fiscal Commission's Report. In paragraph 187 of their report, the Fiscal Commission say "Java tea makes its way in virtue of its cheapness. It is therefore inexpedient to handicap Indian tea by an export duty at however low a rate. We hold therefore that the export duty on tea should be removed." On the other hand if you look at the Indian Taxation Enquiry Committee's Report, paragraph 158, you will see that the view of the Fiscal Commission has been controverted. The Fiscal Commission says that the progress of Java has been made at the expense of China and not of India.

Mr. Macbean.—We still feel the competition from Java. In Australia for instance a large proportion of their requirements is taken from Java.

President.—My colleague has just drawn my attention to the Appendix VII of the Taxation Committee's Report which gives all the figures. The increase in the percentages is really in competition with China and not India.

Mr. Macbean.—Perhaps that may have been the case but it is certain now that we feel the competition.

President.—Is it the case that you apprehend in the future that you will have more competition, though in the past you have been able to maintain the position?

Mr. Macbean.—Yes.

The existing 15 per cent. duty—drawback.

President.—As regards the 15 per cent. duty, you say in your letter that it is not a question of the enhancement of duty but rather a question as to whether the present import duty should not be removed altogether and at once. This 15 per cent. duty was only put on for revenue purposes.

Mr. Macbean.—That was the argument. I think it was one of the applicants who made that point.

President.—We can take it that the present 15 per cent. duty is imposed for revenue purposes. I think that the one of the applications refers to this matter and gives a quotation. This is what the Assam Saw Mills and Timber Company says:—"This statement is supported by the fact that when the import duty was increased from 2½ per cent. to 15 per cent. Government stated that it was not a protective duty in any way but a revenue tariff (*vide* Sir Charles Innes' speech in the Legislative Assembly on 20th March 1923)."

Mr. Macbean.—Of course it does act as a protective duty.

President.—All revenue duties act as a protective tariff. But when the duty was imposed, the intention of the Legislature was to raise revenue by it, so that you would not really contend, would you, that the tea industry has any sort of moral claim or right to this drawback?

Mr. Macbean.—Tea is the same as any other commodity: a motor car for instance. If it is re-exported, a drawback is given.

President.—That is perfectly true. The industry is entitled to get any rebate which is admissible under the rules. That is perfectly correct. But what I was trying to get at was that you would not contend that you have any sort of moral claim to get this drawback or that it was the intention of the legislature that you should get the drawback.

Mr. Macbean.—I don't know what the intention of the Legislature was but I think we have a right to claim all the privileges we are entitled to under the rules.

President.—Supposing the rule was altered, obviously, you would not be able to claim the drawback. You would not contend then that now that the rule has been altered, you have a moral right to claim that.

Mr. Macbean.—The claim would not be there.

Dr. Matthai.—You would not have any particular reason to complain.

Mr. Macbean.—Not if it was part of the Act.

Dr. Matthai.—May I put it this way? Supposing the Sea Customs Act was so altered that your industry did not get the benefit of a drawback you would not go so far as to say that it would hit you to any substantial extent in the export market.

Mr. Macbean.—No. In fact we have not claimed any rebate so far. We are only claiming our right under the Act, though we have never actually got the rebate.

President.—Under the Sea Customs Act, as it stands at present, you are entitled to a drawback like other industries, and so you want to get it. If it came to a question of altering the Act so as to deprive you of that right, you would not say from the point of view of the tea industry that this is a burden which ought to be removed. Would it affect your position relatively to other countries like Java if this drawback was withdrawn?

Mr. Macbean.—We say that it would add to our handicap in competition with other producing countries. Not if you are going to look at it from the point of view only of the preference enjoyed by Indian teas in Great Britain but there are still the outside markets to consider which are becoming a very large factor of importance to the industry.

Dr. Matthai.—The tea industry is in a peculiar position because its market is mainly an export market, and so I recognise we should be careful in putting tariff burdens on it. At present the duty on the chest comes to about 7 annas, of which three annas is the duty levied on the linings and fittings, so that the panels bear a duty of only four annas. Supposing the drawback is allowed, you pay only half an anna because you get a rebate of seven eighths. If the drawback was withdrawn, you would have to pay an extra $3\frac{1}{2}$ annas which comes to less than half a pie per pound. You would not go so far as to say that that would affect your competitive strength.

Mr. Macbean.—No.

President.—In fact, as you said just now, you have never been able to get the drawback.

Mr. Macbean.—We have not endeavoured to get it back.

President.—So that if now the Sea Customs Act were amended so as to make it impossible for you to obtain the rebate, you would remain in the same position as you are now.

Mr. Macbean.—Yes.

President.—There would not be any change at all.

Mr. Macbean.—No.

President.—So that if for example we found that all that was necessary for the tea chest industry was to maintain the 15 per cent. revenue duty, we might not really expect any opposition from the tea industry.

Mr. Macbean.—I would not go so far as to speak on behalf of the tea industry, but personally I don't think you will get any opposition from the industry.

President.—You say that up to the present you have never been able to secure any rebate.

Mr. Macbean.—We have never tried to get it.

President.—Quite so; there is the question of identification. I understand there are considerable difficulties in the way of allowing a drawback.

Mr. Macbean.—Undoubtedly a lot of difficulties are being put in the way of claiming it. Rebate is only allowed on parts which are stamped and which can be easily identified.

President.—There are various difficulties I suppose which would mean a certain amount of additional expenditure.

Mr. Macbean.—Yes, but it will be worth our while to incur that expenditure.

President.—Probably the exporters would require to have a man down in the Customs occasionally to identify boxes or be prepared to identify the boxes if the Customs wanted to.

Mr. Macbean.—The Customs department would require some means to have the boxes identified against import documents.

President.—That would mean some sort of extra staff.

Mr. Macbean.—It will mean more staff for the Customs authorities than for the tea industry.

President.—If there were some thousands of boxes a day to be exported and for some reason or other the Customs department desired to examine 5 per cent. of the boxes, would not the exporter have to send a man down?

Mr. Macbean.—There will have to be a permanent staff to attend to that.

President.—Who would engage that staff?

Mr. Macbean.—The Port Trust authorities, I consider.

President.—Would not they have to have some representative on behalf of the exporter?

Mr. Macbean.—Yes, to examine the chests that come in with reference to the invoices.

President.—Would not that mean additional expenditure to the tea trade?

Mr. Macbean.—Not much.

President.—Another point is this. When the importer imports these boxes he has to pay 15 per cent. duty. He sells these boxes to upcountry tea gardens: when the tea garden exports these chests it is the exporter who gets the drawback, so that there would have to be some adjustment between the importer and the exporter. Would not that mean extra accounts to keep and much correspondence?

Mr. Macbean.—These things can be arranged.

President.—Have you framed any sort of estimate as to what it would actually cost?

Mr. Colman.—Not from the administrative point of view but we have from the point of view of marking of boxes. The industry will be able to find out what the cost would be.

President.—Supposing Government were to allow you a rebate, the duty on the panels on which alone drawback can be claimed, amounts to 4 annas.

Of that $\frac{1}{4}$ th remains with Government, which is half an anna. That gives you $3\frac{1}{4}$ annas; out of that $3\frac{1}{4}$ annas what nett rebate will you get after all your expenses?

Mr. Macbean.—I don't think it would cost more than an anna. Marking of chests would cost very little indeed.

President.—There is the actual expense, then there is the worry and the trouble and the risk that you have at the end of it that owing to some slight mistake on the part of the importers the rebate on the consignment might be disallowed?

Mr. Macbean.—One anna per chest would I consider cover our expenses. But I think it would interfere with the shipment of chests if the Customs were to examine a certain percentage of the consignments. It might result in the tea being shipped slowly; it might be hung up in Calcutta and the exporter might prefer not to claim the rebate at all to avoid the delay.

President.—Apart from this $1\frac{1}{4}$ anna you claim now, there is also the possibility of extra interest on tea consignments which are held up or some manufacturer may be careless about the marks so that you cannot get a rebate in the end.

Mr. Macbean.—We realize our difficulties.

President.—Have you formulated any idea what the rebate would work out to?

Mr. Macbean.— $2\frac{1}{4}$ annas per chest.

President.—Even allowing for delays?

Mr. Macbean.—These have not been taken into consideration.

President.—That leaves just about $2\frac{1}{4}$ annas per chest?

Mr. Macbean.—Yes, one anna for the cost of marking the chest and the extra staff needed.

President.—Have you formulated any idea on the subject to Government.

Mr. Macbean.—No, we have not come to any conclusion yet.

President.—On the one hand the drawback system gives much administrative trouble to the Customs and possibly expense, and on the other hand it causes you some inconvenience and possibly extra expenditure. Has any suggestion been made to Government that the duty should be so reduced, as to give the industry the net relief to which it would obtain by the drawback allowing for the extra expense which would be incurred?

Mr. Macbean.—That possibility has been mooted but no proposal has yet been brought before Government. We have to find out how we should get this rebate. We have only managed so far as to get the Customs department to say "you can get this rebate on certain identified parts" but the question may arise if there is a suggestion of the import duty being removed and the imposition of an export duty to take its place on tea packed in other than Indian manufactured chests.

Schemes put forward by the applicants for protection.

President.—The alternative schemes which have been put forward by the firms applying for protection are two. The Assam Saw Mills and Timber Company suggest a bounty of four annas and the maintenance of the bounty, or, in the alternative, if the bounty is not allowed, a 25 per cent. duty. The Assam Railway and Trading Company say they would do away with the bounty entirely, but they ask for a rebate of $9\frac{1}{4}$ annas on a full sized chest or $13\frac{1}{4}$ annas if the import duty is removed. So far as the Tea industry is concerned it is not really affected by the amount of the bounty proposed except as a tax-payer.

Mr. Macbean.—No, not so long as we have not to pay the duty.

President.—Quite so, but there are certain difficulties in the way of a bounty. If a protection were successful in supporting the industry it might

mean a considerable increase in the number of tea chests manufactured in the country: there would be this possibility. We hear the Madras Government are starting a tea chest factory in Madras and there is the possibility of the Buxa Timber Trading and the Surma Valley Factory being revived.

Mr. Macbean.—I understand the Buxa Timber Trading Company has been sold to some Indian firm which has started work.

President.—We had a request for our questionnaire from the new firm which has taken over by the Buxa Timber Trading Company. So far as I can see we may expect an increase in the number of works and an increase in the number of tea chests manufactured. That would face the Government of India in the Finance Department with an indeterminate liability. Supposing protection was granted for a period of 10 years it would be difficult to state the exact financial liability imposed by a bounty. It would be a very unsatisfactory position.

Mr. Macbean.—You have got an estimate of the possible output from the different districts given by the Assam Saw Mills who say that the Brahmaputra valley can produce as a maximum 15 lakhs of chests.

Dr. Matthai.—That is only as far as the Assam Saw Mills are concerned. Supposing other firms like the Buxa Timber Trading Company or the Surma Valley Company were to come in, or somebody in South India started a factory there, the total amount of bounty might be much bigger than we can anticipate now. It would become an indefinite liability on the Government.

Mr. Macbean.—But it seems to me that a very small import duty would cover any amount of bounty that the Government would pay. After all the duty has got to be paid now on 2 million chests; only a small fraction of the duty collected would be needed to pay a bounty.

President.—What is your idea exactly? Do you mean that over and above the 15 per cent. duty a small duty should be imposed to finance the bounty?

Mr. Macbean.—I am not suggesting that. If it is the intention of Government to put an import duty, it would only require a very small amount to pay the bounty.

President.—The duty at present is a revenue duty.

Mr. Macbean.—Presuming Government proposes to enhance the duty I take it that it would be for protective purposes. That would mean only a very small enhancement would be required to cover any bounty needed for these chests.

President.—On the other hand a duty of 25 per cent., what they ask for, would only mean an increase of 3 annas in duty per chest.

Mr. Macbean.—A duty of 25 per cent. would give the Government about 18 to 20 lakhs of rupees enough to pay a very large bounty per chest and still leave a substantial surplus.

Dr. Matthai.—Your point is this. Supposing it came to the question of giving them a bounty, then we might have a small increase to the import duty and out of that small increase we can finance all the bounty that they want?

Mr. Macbean.—Yes, it would mean a very small increase to the importer.

President.—But actually what they ask for is a 25 per cent. duty without rebate. That also would mean a very small increase. Supposing it was possible to maintain the duty on fittings at 15 per cent., because you neither gain or lose on the fittings, and put a 25 per cent. duty in place of 15 per cent. on the ply wood, that would mean a very small increase, would it not?

Mr. Macbean.—That is 10 per cent. of about 5 lakhs of rupees.

President.—At present it is less than 5 lakhs. $\frac{1}{3}$ ds would be an extra 3 annas per chest.

Mr. Macbean.—We have given you the figures. If the Assam Saw Mills could manufacture the maximum 5 lakhs we would still need 2,000,000 chests.

President.—Even if there is the alternative system of 25 per cent. duty, if that is given to them, it would not mean a very large increase. Would it?

Mr. Macbean.—My point is, if there is any enhancement of export duty on extra 10 per cent. is not needed to cover the bounty.

President.—Your point is that it will be preferable to impose a 5 per cent. extra duty and a small bounty which can be financed from the extra 5 per cent. duty.

Mr. Macbean.—Yes.

President.—Then of course if we were to recommend a duty . . .

Mr. Macbean.—I do not recommend it.

President.—If we were to recommend a duty there would still be some difficulty about rebate unless the Sea Customs Act was amended, and there is some difficulty in amending the Sea Customs Act without re-considering the whole rebate policy of Government.

Mr. Macbean.—In any case there is no question of getting a rebate on parts not visible.

President.—But there would be certain difficulties about amending the Sea Customs Act so as to make it impossible to obtain a rebate. Although we have no reason to suppose that there is any considerable amount of re-export of panels not made up into tea chests to other countries, still the policy underlying the drawback system appears to be to encourage through trade. If, for example, a planter in Madras finds he has a quantity of panels above his needs and he has a tea garden in Ceylon to which he could send them. It would be hard to disallow a drawback in that case. It might be difficult to abolish the drawback system and yet provide for cases of that sort. On the other hand if drawback was only disallowed in the case of industries which were protected, other difficulties might arise. For instance, we are informed, that in Madras a firm imports tin plate and makes up tins for the export of sweets and re-export of the tins a drawback is allowed. The issues raised by the proposal to abolish drawback are not confined to the tea chest industry.

Dr. Matthai.—Supposing we decided on a review of the costs of the Assam Saw Mills, that they require protection, and then we decided to give protection in the shape of an import duty of 17½ per cent. and the rest in the shape of a bounty to be financed out of the proceeds of the duty would you have any very strong objection?

Mr. Macbean.—I could not speak on behalf of the Tea Association but I fancy it would object; it feels that to mulct the Tea Industry in order to give protection to the tea chest manufacturer is a case of robbing Peter to pay Paul; benefiting one industry at the expense of another.

Dr. Matthai.—Does not the Tea industry in India stand to benefit. Moreover, tea is an article of national importance. Take the question of war. The transport of tea might be a matter of importance to the Empire in time of war. Is it not of very great importance that there should be a secure local supply of tea chests?

Mr. Macbean.—That we have not got. We have only got a small quantity of supplies.

Dr. Matthai.—Assuming that it is established that we have here the materials that might ultimately build up a large tea chest industry, in that case in the long run the tea industry itself would stand to benefit.

Mr. Macbean.—That is probably taking a very long view.

Dr. Matthai.—It is possible that you are taking too short a view.

Mr. Macbean.—We have managed to secure tea chests even in war time. We got them from Japan, from Sweden, etc.

President.—At a very big price.

Mr. Macbean.—There was then no competition.

President.—You would always have competition if once the tea chest industry is established in India. There are already two firms and there is a prospect of two more starting. It is a fact that in the war the tea industry had to pay a very high price for imported tea chests whereas the Companies manufacturing shook boxes did not raise their prices.

Mr. Macbean.—We paid high prices for the veneer chests.

President.—Veneer boxes were not then manufactured in India, but actually the price of shook boxes which were the substitute for veneer chests could have been forced up. The firms concerned did not do so. They got a very moderate price during the war, was not that so?

Mr. Macbean.—Possibly.

President.—Owing to their long standing connections with various tea gardens, many of these Companies did not force up the price to the limits to which they could have done.

Mr. Macbean.—I am not quite sure about the altruistic motive.

President.—This is the information we have received. The prices were not forced up and the reasons stated for that are that whether as a matter of policy or on account of long trade connections the opportunity of forcing up prices, was not taken.

Mr. Macbean.—Probably there is a certain amount of sentiment in that regard, but I don't think there is very much.

President.—Still the fact remains that the prices of shook boxes were not forced up to the limits to which they might have been forced up.

Mr. Macbean.—I could not express any opinion.

Mr. Colman.—This refers to country made boxes.

President.—Yes.

Mr. Colman.—The industry as a whole is not interested except in extreme cases.

President.—Actually during the war a large number of shook boxes was supplied and the prices were on the figures given to us moderate prices as compared with import prices. Does not the Indian Tea Association consider that there is any prospect of prices being forced up by a combination of the Companies in Europe after elimination of the Indian Companies.

Mr. Macbean.—I don't think so.

President.—Not at present, but because of the over production . . .

Mr. Macbean.—Yes, they are competing with each other.

President.—That position might change.

Mr. Macbean.—These firms have not only the tea industry to supply, but they supply also rubber estates in the F. M. S. and elsewhere and other industries packing at home. The Companies are not entirely dependent on the Tea Industry and whether there is competition in India or not there will be competition between themselves for other markets.

President.—The present is the time of combinations and large trusts, as we have seen in the Match industry. It would not be impossible for some large captain of industry to organise the ply wood industry somewhat or the same lines as the Match industry. You don't apprehend anything like that.

Mr. Macbean.—It is possible, but we don't apprehend anything of this nature.

President.—Not in the immediate future. It is a risk which might be insured against.

Mr. Macbean.—By what measure?

President.—By having a home industry.

Mr. Macbean.—They might go into the combine as has been done in the case of the Match industry.

President.—It is news to me. I was not aware that any Indian firms had joined the match combine.

Mr. Macbean.—The Swedish Match Combine have also started their factories out here. It is only in that respect I am speaking of.

Dr. Matthai.—You don't attach any practical importance to this consideration.

Mr. Macbean.—No.

Dr. Matthai.—There is another point of view I should like to put to you. The tea industry has done such a lot in opening up undeveloped parts of Assam, and providing stable employment. The tea chest industry, as I look at it, is a subsidiary industry to the tea industry, in the sense that it is providing something which is required by the tea industry.

Mr. Macbean.—That is so.

Dr. Matthai.—When your industry has succeeded so far that it calls into existence a subsidiary industry, don't you think its existence is a matter which ought to receive your encouragement?

Mr. Macbean.—We have every desire to give it encouragement. We shouldn't like to see any of these Companies failing, but we think they ought to be able to stand without government assistance.

Dr. Matthai.—Something more than an expression of good will is required on your part.

Mr. Macbean.—There is a good deal of purchasing done by firms in Calcutta from the Assam Saw Mills.

Dr. Matthai.—They have a capacity of about 5 lakhs of boxes. It is with great difficulty they are able to find a market for half that number. Therefore if it came to placing a small burden on the tea industry but not by any means a burden that will expose it to any risk in the export market, it seems to me that you ought not to object to it because it is an industry which has followed in the wake of the Indian Tea industry. It is really the tea industry that has brought into existence the tea chest industry.

Mr. Macbean.—It is because of the tea industry being existent and not because of any encouragement from the tea industry.

Dr. Matthai.—Any way the principal industry has brought into existence a subsidiary industry.

Mr. Macbean.—These Companies have been formed on a commercial basis in order to give dividends. I have not seen the Companies giving dividends so far.

Dr. Matthai.—I don't say they were formed out of philanthropic motives, but they did come into this business at a time when the tea industry was sorely in need of a local supply of chests.

Mr. Macbean.—Yes.

Dr. Matthai.—And therefore, I should say that the tea industry in India has at least a moral obligation to see that this industry does not disappear. You can't get away from that. I don't for a moment want to suggest that the tea industry in India should be burdened in such a way that it is exposed to serious risk in competition with Java or Ceylon. But consistently with that you have a certain obligation to see that the tea chest industry does not altogether disappear.

Mr. Macbean.—A certain amount of obligation is felt by a number of firms in Calcutta. They do buy from the Assam Saw Mills.

President.—As my colleague was putting it, there is a moral obligation on the tea industry as a whole which of course your Association represents.

Mr. Macbean.—The moral obligation disappears when its cost acts as a handicap against the Industry.

President.—It is so small taking into consideration the market variations that it would hardly affect the industry at all. Half a pie per lb. is not much.

Mr. Macbean.—No. Of course the tea industry on the whole is in a prosperous condition, but it must not be forgotten that a great many of Companies started during the last ten years are not in a position of paying any dividend owing to their high capital cost. Anything that adds to that burden will make it more difficult for them to carry on.

President.—That is perfectly true.

Mr. Macbean.—I do not know of any Company being started during the last 10 years which is on a dividend paying basis.

President.—We have discussed the bounty scheme and the question of the increased duty and we find difficulties in both the suggestions. But what do you think of a suggestion on these lines. The 15 per cent. duty on the fittings as regards which you can get no rebate should be maintained, but as regards panels the 15 per cent. duty should be abolished. In place of that an export duty should be imposed on all tea exported in foreign made boxes, but not on tea exported in Indian made boxes. That would avoid some of the difficulties as regards the rebate system. I am not expressing any opinion as to the amount of duty. It is a point with which we should deal later.

Mr. Macbean.—Is it not rather contrary to the dictum made by the Fiscal Commission?

President.—The Fiscal Commission recommended the abolition of export duties on general principles, the general principle being that an export duty as a rule save in the case of a monopoly penalises that particular trade in the country. That would be your main objection.

Mr. Macbean.—Yes. In paragraph 187 of their report the Fiscal Commission say:

"In the United Kingdom also in spite of the preference granted to Empire teas the proportion of tea imported from Java remains appreciable. Java tea makes its way in virtue of its cheapness. It is therefore inexpedient to handicap Indian tea by an export duty at however low a rate. We hold therefore that the export duty on tea should be removed."

They contend that the whole of the export duty should be abolished.

President.—My colleague draws my attention to paragraph 184.

"We have stated generally the principles which we consider should be applied with regard to export duties in India, and we now proceed to consider in the light of those principles the existing export duties and others which have been suggested to us. We have not referred to small cesses, such as those on tea and lac, which, while levied on exports, do not go into the general revenues, but are devoted solely to the improvement of the industries on which they are placed. It is obvious that, being levied with the consent of the producers and for their benefit, they cannot be open to the ordinary objections which apply to export duties."

At present you have under the Tea Cess Act a small cess of As. 6 imposed on tea which can be raised to As. 8. Supposing it was suggested that this export tax should be imposed only on tea exported in foreign made boxes and the import tax on panels should be abolished, but at the same time any increase in the export tax out of the amount of the import tax at present imposed should return to the tea industry by way of contribution to the Tea Cess Committee. Will that commend itself to you?

Mr. Macbean.—I am not prepared to answer that question.

President.—Would your Association be prepared to consider that and give us their opinion?

Mr. Macbean.—I cannot answer that question in anticipation, but it would have to be considered by them.

President.—Do you yourself see any practical objections to that?

Mr. Macbean.—Any export duty will be opposed by the Tea industry.

Mr. Colman.—I think the industry will oppose any recommendation of an export duty of any kind.

President.—Even if it was refunded to the industry.

Mr. Macbean.—Yes, even if there was some problematical refund.

President.—This would not be an export tax on tea, but this would be an export tax on tea chests.

Mr. Colman.—We have a very large number of chests.

President.—You will be exactly in the same position as at present.

Mr. Colman.—Hardly.

President.—Let us take the figures. You pay an import duty of 15 per cent. on panels which comes to As. 4. We abolish that and we impose an export tax amounting to As. 4. Your position remains the same. In addition, let us say, we put on a three annas tax. At the end of the month or 6 months or whatever period may be selected this As. 3 is refunded by way of contribution to the Tea Cess Committee. The tea cess is reduced automatically by As. 3. The gardens are in the same position, aren't they?

Dr. Matthai.—The tea industry bears no extra burden and the tea chest industry gets the protection it requires. Would not that be a fair arrangement?

Mr. Macbean.—I cannot say it is any more fair than the existing duty which still comes to As. 4 or so per chest on the panels.

President.—The extra As. 3 or As. 4 whatever it may be is found without any additional expense to the tea industry.

Mr. Macbean.—I think in any case the tea industry would strongly object to any form of export duty on chests.

President.—Would it be possible for you to obtain the Tea Association's opinion and give it to us?

Mr. Macbean.—Yes, but it would take some time.

President.—How long it would take?

Mr. Macbean.—We have got to make a reference to London.

Dr. Matthai.—Suppose we find on a consideration of the facts of the industry that it requires protection for a period of 5 years. I understand that the Tea Cess Act comes up for the periodical revision next year.

Mr. Macbean.—It comes up for revision after every five years.

Dr. Matthai.—It comes up for revision again in 1928. Supposing for the next five years it is suggested, on the assumption that the extra protection required is four annas, that the tea cess which is now levied at the rate of 6 annas might be reduced during the next period of five years to 2 annas and the difference between the amount now collected as cess which comes to something like Rs. 13 lakhs and the amount that may be collected as cess during the next quinquennial period is made up by a contribution from the proceeds of this protective duty, it looks to me, from a financial point of view, that it does not make any practical difference and at the same time you will have done your bit, if you accept the scheme, towards helping what is obviously a useful subsidiary industry.

Mr. Macbean.—It would also mean that the Tea Cess Act should be reconsidered.

Dr. Matthai.—The funds would still be used for the specific purposes mentioned in the Tea Cess Act. It would only mean a slight modification of the Act to suggest that the Committee would have the power to administer not merely the funds which come from the tea cess but any extra funds which may be contributed by Government. It may be that the scheme has other practical difficulties. As you will appreciate, the Tariff Board has got to consider the interests of both the parties.

Mr. Macbean.—If it is decided that some form of protection is to be given the tea industry will be glad to have the alternative suggestions and consider which is best for them.

Dr. Matthai.—We consider that the tea industry is in a somewhat exceptional position. Unlike other industries, it has to depend mainly on the export market and anything that the Government of India or the legislature may do will not help you to improve your prices in the export market and therefore we have got to proceed cautiously. We feel that it is the duty of the Tariff Board in this enquiry to see that no unnecessary burden is placed on the tea industry. If, however, it is possible to devise a scheme which would fairly apportion the burden and limit it, it is a matter which merits your support.

Mr. Macbean.—Still the burden is there.

Dr. Matthai.—Assuming that we accept the figures of the companies concerned the burden on you under the Scheme we are discussing will be only the present 15 per cent. and nothing more. The extra four annas is deducted from the tea cess so that the burden on the tea industry remains the same.

Mr. Macbean.—We would want all the money that could be had from the tea cess.

Dr. Matthai.—The cess amounts now to Rs. 13 lakhs. If this scheme were accepted, then it would mean that the Tea Cess Committee would get about one third of its revenue out of the tea cess and the rest would be contributed by Government from the proceeds of the protective duty, so that the total budget of the Tea Cess Committee would remain the same.

Mr. Macbean.—Government could not contribute unless they obtained the money from somewhere.

Dr. Matthai.—Government would reimburse you from the proceeds of the export duty. They would release the amount in your favour.

Mr. Colman.—Only the buyers of the imported chests would support the cess which is for the purpose of increasing the consumption of tea by doing propaganda work.

Dr. Matthai.—Do you think that it would work that way?

Mr. Colman.—It would be an inducement for many gardens to buy the imported chests.

President.—I should think that it would work the other way. In order to avoid the export tax, I should think that they would buy the Indian chests.

Mr. Colman.—There would be that consideration too, but there would also be the other consideration.

Dr. Matthai.—If you had an export duty on tea packed in foreign chests?

Mr. Colman.—Yes, then they would feel that they are supporting the tea cess.

Dr. Matthai.—There is no industry that I know of which takes that line. The tea industry must be exceptionally philanthropic!

Mr. Colman.—In the matter of tea cess, it is philanthropic.

Dr. Matthai.—Taking your original point which is this: we are asking the person who buys imported chests to pay an export duty on his tea. At the same time, there is no extra burden on him. The burden on him is precisely the same because the scheme implies a corresponding reduction in the tea cess.

Mr. Colman.—If he bought an imported chest, he would be contributing to the tea cess by paying an export duty and so he might prefer to buy imported chests.

Dr. Matthai.—I should have thought that in business matters, your choice would be determined by business considerations.

Mr. Macbean.—That is why we should like to know in what form protection is going to be given.

President.—We cannot possibly tell you in what form it is going to be given or even if we shall recommend protection. We have not arrived at any conclusions. It is impossible even to give you any indications as to what our conclusions would be. Our proposals will be submitted to the Government of India in the first instance and will be published in due course.

Mr. Macbean.—Does that mean that no chance will be given to the tea industry to consider the suggestions?

President.—I am not authorised to speak on behalf of the Government of India, but I should imagine that the tea industry would be consulted in the matter. What I am trying to do is to place before you the alternatives. The first is the question of bounty. We are agreed that there are certain difficulties in the way. Then, there is the question of import tax. If it was increased to 25 per cent. as the manufacturers suggested and if a rebate was disallowed, it would mean an extra imposition on the tea trade of three annas per box. We tentatively suggest an alternative of an export tax on tea exported in chests of other than Indian manufacture, the extra burden on the tea trade being refunded by means of a corresponding contribution to the Tea Cess Committee. There will also be a corresponding reduction in the tea cess at present levied.

Mr. Macbean.—That is after Government have taken the equivalent of 15 per cent. for revenue purposes.

President.—I cannot give you the exact figures. But the third proposal avoids some of the difficulties which you yourself have put forward. You have said in your letter here that you do not wish anything to be done which will mean any extra burden on the tea industry. Now we cannot express any opinion but if it should appear that the tea chest industry qualifies for protection and that a moderate amount of protection should be granted, our third suggestion, so far as we can see at present, would meet that particular point *viz.*, that no extra burden should be put on the tea industry. You say that the tea industry would oppose that strongly because they would oppose any form of export tax.

Mr. Macbean.—On a point of principle I am quite certain that they would oppose the reimposition of an export duty. But if this was to result in a very large increase in the import duty, it might be worth while considering the other alternative.

President.—You cannot of course commit your association. Would an extra import duty on which no refund shall be allowed, commend itself to you personally or would the export duty by which no extra burden would be placed on the tea industry commend itself to you?

Mr. Macbean.—From my own personal point of view, I cannot see that there is very much difference. Either way the burden remains the same.

President.—The additional burden will not remain the same. In the one case it will be three annas and in the other case it will be nil.

Mr. Macbean.—That is if we bought Indian made tea chests.

President.—In any case! So far as the industry as a whole is concerned, the three annas you pay would be refunded to your Tea Cess Committee.

Mr. Macbean.—I take it that your suggestion is that the export duty should not be levied on tea exported in Indian made chests.

President.—And also that anything over and above the 15 per cent. should be refunded by way of contribution to the Tea Cess Committee.

Mr. Macbean.—If it is a business proposition, it would mean that in the one case we have no extra burden over and above the 15 per cent. and in the other we have to pay an extra three annas.

President.—Has the Association considered any suggestion or alternative on the supposition that some protection is necessary?

Mr. Macbean.—No alternative suggestion has been put forward. It has not been discussed at all.

Dr. Matthai.—In paragraph 3 of your memorandum you say that as far as the suggestion of a bounty of four annas is concerned, your Association has no objections to offer and I take it therefore that the idea of the Association as a whole on this question is that any scheme of protection which does not involve an additional burden on the tea industry will not be objected to by the Tea Association.

Mr. Macbean.—I think that is the general idea.

Dr. Matthai.—This alternative scheme is precisely in keeping with the idea of your Association.

Mr. Macbean.—I see.

Linings and fittings.

President.—In paragraph 6 of your letter of 16th July, 1927, you say "Moreover the mills in India are producers of ply wood shooks only, and in order to sell complete chests to customers, they secure lead linings and fittings from outside sources which are at present restricted to mills belonging to competitors." Our information is that at any rate the Assam Saw Mills and Timber Company have obtained all their fittings and linings in India. The lead linings are manufactured by three companies in Calcutta and their fittings are manufactured at Kamarhatty.

Mr. Macbean.—That does not alter the meaning.

President.—"From outside sources" in this case means from abroad, does it not?

Mr. Macbean.—I don't think that it was intended by the Tea Association by that phrase to mean abroad, but that they do not manufacture these things themselves.

President.—In paragraph 9 of the same letter, you say "It is natural that the Government of India should be desirous of encouraging indigenous industries but the Committee of this Association maintain that the ply wood and tea chest making industry in India is only semi-indigenous seeing that it produces, in India, only part of the complete articles."

Mr. Colman.—I think that what the Association wanted to convey was that linings and fittings were bought and not produced by the companies seeking protection.

President.—The linings and fittings are manufactured in India.

Mr. Macbean.—I believe so.

President.—We are given to understand that actually the lead linings at any rate produced in the country are sufficient for the industry.

Mr. Macbean.—I think that is the case.

President.—The fittings also are produced in the country.

Mr. Macbean.—Yes.

President.—Another point you make in the same paragraph is that the number of chests which the Indian industry manufactures is comparatively limited and that in any case a large number of chests will have to come from abroad. The point of that as I understand it is that in order to protect a small industry the burden to be imposed will have to be very large.

Mr. Macbean.—It means that 82 per cent. of the industry is penalised because the tea trade cannot buy all its requirements even if it wanted to in India.

President.—That objection would of course be avoided by the third method of protection which has been put forward by us. If the extra tax goes back to the industry, you would not be worse off.

Import Prices.

You say that the cost of an imported box (24×19×19) may be taken as 4s. 6d. Calcutta. Is that the c.i.f. price? or is that the dealer's price?

Mr. Macbean.—It can be purchased in Calcutta for Rs. 3.

Dr. Matthai.—Do you mean for the standard size of 19×19×24.

Mr. Macbean.—Yes.

President.—It is not suggested that that is the invoice price. The difficulty has arisen in this way. The importers of tea chests have stated in their letter to us that they are merely agents for chests and that they have no knowledge

of the manufacturers' costs and that the only prices that they can give us are their prices.

Mr. Macbean.—That includes their profit. When we give Rs. 3, as the price of a chest, it means that a chest of that size can be purchased at that price in Calcutta.

President.—Is it not true in the tea chest trade that a considerable amount of discount is given according to the size of the order? We find that to be the case in a number of trades.

Mr. Macbean.—That is so.

President.—So the current price would not be much of a guide for our purposes.

Mr. Macbean.—It would not.

President.—It would be better to rely on the Customs returns, would it not?

Mr. Macbean.—Yes.

Dumping.

President.—With reference to this particular point it has been alleged by the manufacturing firms here that there is a definite policy of dumping adopted by the European manufacturers with the idea of completely destroying any prospect of the industry starting in India.

Mr. Macbean.—They can prove that there is competition amongst themselves. As far as we are aware, there is no agreement between those people to dump their goods in India.

President.—There are several points bearing on this particular allegation and one of them is that if it is the usual trade practice in this line to grant discounts, that might well appear to competing firms manufacturing in this country to be a policy directed specially against them, even though it was not so?

Mr. Macbean.—It would appear from the point of view of the local manufacturers to be a policy directed specially against them.

President.—Have you any knowledge of the European conditions in the ply wood industry at present?

Mr. Macbean.—No.

President.—Your Association would not be able to advise us for instance whether there were any special circumstances in the trade which enabled the companies at home to place their tea chests in the Indian market at such a cheap price?

Mr. Colman.—I am afraid they won't be in a position to give you that information.

Dr. Matthai.—Have you formed any general impression as to why it is that during the past year or two there has been such a marked fall in the price of tea chests?

Mr. Macbean.—That conforms to world conditions. Price of everything has gone down; cost of labour has come down and there is more efficiency in the works and more production.

Dr. Matthai.—Your own idea is, is it not, that this fall in price has occurred both in India and elsewhere?

Mr. Macbean.—It is not confined to India alone; we can give you proof of that.

President.—Could you give us, for instance, any idea of the price of tea boxes in Java or Japan?

Mr. Macbean.—It is quite possible to get the information, but we cannot let you have it off-hand.

President.—Our time is rather limited in this enquiry; we want to try and finish the report by the end of September.

Mr. Macbean.—I think it might be possible for us to get the information by then.

President.—In Ceylon at any rate we can assume that there is no serious competition from manufacturing firms situated in the north of Assam. With the removal of any competition from Indian firms if there is a definite policy of dumping the price of tea chests might be a little higher.

Mr. Macbean.—You have got to take the duty into consideration.

President.—Perhaps you could ascertain that fairly easily. If you do not mind, would you give us some indication of the price in Ceylon for 19×19×24 chests?

Mr. Macbean.—Yes.

Dr. Matthai.—Is that the size used mostly in Ceylon?

Mr. Macbean.—That is the standard size in India but I cannot say whether that is the standard size in Ceylon. We shall have to ask them which is their standard size.

President.—If you could give us the price for the last two years that would be sufficient.

Ply board Prices.

Dr. Matthai.—There is a point you make about the relative prices of ply board and tea chests. The Assam Railways and Trading Company told us that the price of tea chests has come down but not the price of ply boards. You say definitely at the end of paragraph 7 that that statement is incorrect.

Mr. Macbean.—We have had definite information about that.

President.—Could you give us any figures about that?

Mr. Macbean.—They might possibly be found out from suppliers.

President.—If you could send us the figures it would be useful.

Mr. Macbean.—We can get the information for you.

Dr. Matthai.—I find from newspaper advertisements that the minimum price of ply board per square foot is 3 annas. If you take the present price of 9×19×24 chest as Rs. 3 and then deduct about Rs. 1-6-0 for fittings and linings you get about Re. 1-10-0 for panels of 17·6 square feet. Per square foot it is about an anna and a half.

Mr. Macbean.—There cannot be any comparison between the sale of ply wood for tea chests and rubber chests—

Mr. Colman.—Panels selling separately as panellings, I understand, are not the same as panels used in tea chests. They are made for putting on to the wall or ceiling and so on. It is a different business altogether, selling ply board and ply boxes. Panelling is much more expensive. When our letter was written we thought the Tariff Board would possibly get this information from other sources.

Dr. Matthai.—We find it very difficult to get actual prices for ply boards and if you have any figures it would be rather useful to have them.

Mr. Macbean.—I cannot exactly promise but I will try my best.

Freight on tea boxes.

President.—I should like to ask you a few questions about the freight on tea boxes. We obtained from the Assam Saw Mills and Timber Company a statement of freights to up-country markets both for their boxes and for imported boxes which we find it very difficult to compare because we find that imported boxes which are sent from Calcutta may be sent either by cargo or express for which there are different rates. Have you any idea how they are sent in majority of cases?

Mr. Macbean.—I should think 75 per cent. would be sent by express, and 25 per cent. by cargo, but I am not quite sure.

President.—I thought you might have personal knowledge

Mr. Colman.—That is a question which the Association can hardly answer.

Mr. Macbean. The steamer companies could give you the information quickly.

President.—Could you not give us any approximate idea?

Mr. Macbean.—Each firm entirely acts on its own initiative.

President.—The question of freights is of some importance because if the freight from Calcutta to a particular market is higher than the freight from the Assam Saw Mills to that particular market, obviously the manufacturer out here has an advantage which in calculating any protection we shall have to take into consideration. We have got from the Assam Saw Mills a statement as to their chief markets and as to the freights they have to pay. They say their chief markets are—Dibrugarh, Tinsukia, Tezpur, The Dooars, Sylhet, and Darjeeling. We have got their rates to these particular districts and the rates from Calcutta. What we thought of doing was to take the production of each of these districts, divide it by 100 which gives the amount of tea chests and then take the weighted average according to the production of each district so as to arrive at a single freight for the imported boxes and for the locally manufactured boxes. Is that reasonable?

Mr. Macbean.—Yes.

President.—That seems to us one way in which we could compare the freight between imported boxes and Indian boxes.

Dr. Matthai. Has the Tea Association any figures of the output of tea in the areas which correspond to those markets. Can you tell us, for example, the total output of tea in the area for which Dibrugarh is the outlet?

Mr. Macbean. I cannot tell you. Some of it goes by steamer and some by rail.

President.—It makes it difficult for us to arrive at any conclusion. In any case the freight is of some consideration. For example the freight to Dibrugarh the Indian manufacturer is paying is 0-1-11 whereas by despatch the importer pays 0-3-10 and by cargo 0-2-7. Similarly to Sylhet the Indian manufacturer pays 0-5-5, the importer pays 0-3-10.

Mr. Colman. You can get from the inland steamer companies the number of chests they ship from say Tezpur Ghat. That is the only way by which you can get correct information. Similarly you can get the information for Dibrugarh and find out which gardens use this as an outlet.

Dr. Matthai.—Does your association publish any figures apart from figures published in the Indian Trade Journal?

Mr. Macbean.—The figures in the Trade Journal are collated between the Tea Association and the Director General of Commercial Intelligence.

Quality of Indian Chests.

Dr. Matthai.—In your letter dated 5th August, 1927 you refer to the question of the quality of Indian chests. You have told us that opinions in the trade are divided on this point. We put this question when we were at Shillong to the Conservator of Forests, Assam, Mr. Jacob and he was so very definite that the Indian tea chest is as good in every respect as the imported chest. We had another witness a planter who was in some respects critical about the tea chest industry, but on the question of quality he said the Indian chest was quite as good as any imported chests.

Mr. Macbean.—You could get a definite opinion as that in Calcutta. There are some firms who have not had any trouble with their customers, but there are certain firms who have had objections to Indian chests.

Dr. Matthai.—Could you specify the sort of objection that has been felt?

Mr. Macbean.—No. I am afraid we could not.

President.—Is it merely a question of appearance? At present at any rate some of the tea chests which are turned out by the Indian manufacturers are not of the same finish as the imported chests.

Mr. Macbean.—I can't think that appearance has anything to do with it. You could get quite a definite opinion that an Indian made chest as good as the imported article, but on the other hand there are a certain number of firms who have had objections to teas being packed in such chests.

Dr. Matthai.—Is it in the make up of the panels or is it in the mountings because one criticism that we heard in Shillong was that the panels are forwarded from the mills and the fittings are forwarded from Calcutta and in some cases the purchaser found that the two things did not tally and in some cases it was also felt that the packing was not altogether satisfactory. Could you specify in what respects the panels have been found defective?

Mr. Macbean.—We can endeavour to find out, but I doubt whether we can find out any definite information. It is not a question of appearance. I think we can say that definitely.

Dr. Matthai.—Appearance could be set aside altogether.

Mr. Macbean.—Yes, the object of the tea chest is to carry the tea safely to its destination. That is all the chest is intended for.

President.—I think we would be fairly safe in assuming that the tea chests manufactured in India are pretty good, otherwise the opinion will be almost universally against them.

Mr. Macbean.—Yes.

Dr. Matthai.—The Indian tea chest industry has been in existence only for the last three or four years. It appears for a new industry it has done fairly well.

Mr. Macbean.—Yes. They had difficulties to overcome in the beginning, but these seem to have been, more or less, surmounted. What the exact complaint is from the consumers point of view I don't know except that some consumers say that they prefer the imported chests.

Dr. Matthai.—Do you think that there is anything in this argument? The tea business as an industry of long standing is apt to be rather conservative and because they have used certain kinds of packing cases for several years, they don't want to change.

Mr. Macbean.—From the business point of view if one gets a chest to carry tea in good condition to its destination, it doesn't matter what it is made of.

Dr. Matthai.—The point is—If I have been using a class of chest for about 50 years which I have found satisfactory and there is a new chest in the market which is quite as good, why should I change unless there is some advantage?

Mr. Macbean.—There is no reason unless you get the other one at a cheaper rate.

President.—You have many industries in India which have recently come in existence and which have to establish a reputation, for instance, the match, steel and cement industries. At first there must be a prejudice against the products of such industries merely because the user of that particular commodity has been using for the last 30 years a brand from England, Germany or elsewhere.

Mr. Macbean.—Undoubtedly there is that view of the matter.

President.—The price being equal, it is quite probable the demand for the Indian made chests even if it was equally as good as the imported chests would for sometime be small.

Mr. Macbean.—There is no reason why purchasers should change in that event.

Messrs. J. Mackillican and Company

WRITTEN.

Letter dated the 31st May 1927.

We have the honour to inform you that we are importers and users of three ply chests from abroad for the packing of tea and as such we would beg to apply for withdrawal of the import duty of 15 per cent. on the chest with lead linings and fittings complete. Prior to 1916 these chests were admitted into this country free of duty. Since that date import duty was levied for revenue purposes only. There is no question of protection as there are practically no Mills in India who can manufacture a suitable kind of three ply box. These chests are principally imported for export trade and as such are entitled to a drawback on the duty paid. In our opinion it would, therefore, be more advantageous to all concerned if the chests were admitted free of duty on a guarantee being furnished by recognised firms of importers that the chests are intended for re-export.

Messrs. Smith, Stanistreet and Company, Limited, Calcutta.

WRITTEN.

Letter, dated the 3rd August 1927.

We beg to acknowledge with thanks receipt of your letter No. 649 of 29th July 1927 and the enclosed copy of questionnaire issued to manufacturers of ply wood and tea chests in India.

Although not manufacturers of ply wood we are interested as manufacturers of Casein Glue—the adhesive most generally used. We therefore pray that the enclosed may be considered by the Board in conjunction with the main enquiry.

In the year 1919 we—Smith Stanistreet & Co., Ltd.—were approached by one of the newly formed companies for the manufacture of ply wood for tea chests as to whether we would undertake the production and supply of Casein Glue.

We went into the question thoroughly, carried out many laboratory experiments, and ultimately commenced manufacture in May 1920, since when we have been producing the glue intermittently according to demand.

Many difficulties have arisen, due to variations in raw material, climatic conditions, etc., which have been overcome by continuous research and experiment to which we have applied, where necessary, the latest advances in the science of chemistry.

We have also on many occasions given the benefit of our knowledge and experience to the manufacturers of ply wood to assist them in solving their problems.

We have no hesitation in stating now that we are in a position to supply Casein Glue either made to the ply wood manufacturers own formula or our own.

We have laid down a plant at a cost of over Rs. 35,000 capable of handling, if necessary, up to 100 tons of glue per month.

Owing to variation in demand this plant has been idle for long periods, and we have only produced about 500 tons of glue since commencing manufacture for which we have used some 400 tons of Indian Casein all of which has come from the Bombay Presidency.

The above is only a brief statement to which we shall be pleased to add further details if required. We therefore trust that the Board, when coming to a decision, will not lose sight of the fact that Casein Glue is being produced in India and from Indian-made Casein.

**Oral evidence of Mr. D. CUMMING recorded at Shillong on Monday,
the 27th June 1927.**

Introductory.

President.—You are a Director of which tea companies?

Mr. Cumming.—Gillapukri and Dhelakhat.

President.—You are a shareholder in the Assam Saw Mills and Timber Company.

Mr. Cumming.—Unfortunately, yes.

President.—Are you a large shareholder?

Mr. Cumming.—I have put in about £1,000, but I don't think I will get more than Rs. 1,000!

Tea chests made by the Assam Saw Mills. Three-ply and shook.

President.—Have you any experience of their three ply chests?

Mr. Cumming.—Yes.

President.—Both your companies?

Mr. Cumming.—Yes.

President.—What is the extent of their orders?

Mr. Cumming.—They are not very large. 4,000 mds. of tea is about the outturn of each of the companies.

President.—What is your experience of these chests?

Mr. Cumming.—They are quite good. The only thing that is wrong with them is the mounting. All the mountings come from Calcutta. The boards come from Murkong Selek. There is no fault to be found with the box it is quite all right.

President.—Did you find the planks satisfactory?

Mr. Cumming.—Yes.

President.—What about cement?

Mr. Cumming.—Quite all right. They get first class reports about it.

President.—You send your tea home?

Mr. Cumming.—We don't send any to England. We only sell in Calcutta.

President.—So that the tea chests that you require for your tea have not got to bear the same strain as those required by companies which export their tea to England?

Mr. Cumming.—No.

President.—Do your companies use country shooks at all?

Mr. Cumming.—No, not now.

President.—Could you tell us to what extent the country shook boxes are used now?

Mr. Cumming.—I heard lately that the Assam Saw Mills people got a big order from the Assam Company for shooks. It seems that they have gone back to country shooks. Of course I don't know for certain. The Assam Company is a very large company.

President.—For what other purposes would they be using these country shook boxes?

Mr. Cumming.—I do not know.

President.—I thought possibly that the shooks might be used for country trade and the 3-ply chests for export purposes.

Mr. Cumming.—All the Assam Company's tea goes home. They say that the shooks stand the racket better.

President.—As an expert in the tea business, what do you assign to be the reason for the ply chest company finding difficulty in disposing of their output?

Mr. Cumming.—It is all due to vested interests in Calcutta. All the big tea companies in Calcutta are also agents for one or other of these home chests. Messrs. Williamson Magor are the agents for the Venesta, Messrs. James Finlay are the agents for the Imperial and Messrs. McLeod and Company I think are the agents for Luralda and the Planters Stores and Agency Company are now agents for a special kind of chest.

President.—Where it is a question of vested interests the question becomes rather difficult to deal with.

Mr. Cumming.—That is so. The only two companies that I know of who help the Assam Saw Mills and Timber Company are Messrs. Andrew Yule and Company, who are by the way agents for Gillapukri, and Messrs. Balmer Lawrie and Company.

Would protection help the Indian factories?

President.—Do you think that protection would in any way help the industry?

Mr. Cumming.—I do not think so.

President.—Have you any suggestion to make in regard to this industry?

Mr. Cumming.—I only suggest that the Assam Saw Mills and Timber Company be better managed.

President.—In what respect is their management defective?

Mr. Cumming.—The one thing that is up against them is the mounting. Further, they absolutely threw their money away in forming that company.

President.—Do you consider that it is over-capitalised?

Mr. Cumming.—They have reduced the share capital from Rs. 10 to Rs. 3 and still the company is in the same old chronic state.

Dr. Matthai.—How long ago did they reduce the capital?

Mr. Cumming.—Here is the latest report (handed in) for 1925. You will see that they have reduced the share capital in that report.

President.—Have you any share in the management of the Company?

Mr. Cumming.—No.

Dr. Matthai.—You think that their chests are quite as good as the imported chests?

Mr. Cumming.—I should think they are. My managers up there have nothing but good to say about them. We have also got excellent reports from the tea brokers.

Dr. Matthai.—Are their deliveries prompt?

Mr. Cumming.—No, I believe they are not sometimes.

President.—Has that caused much inconvenience to the tea trade?

Mr. Cumming.—No, I don't think so. Only in some cases I heard that they were not up to date with their deliveries.

Dr. Matthai.—Supposing we decided to give them protection?

Mr. Cumming.—I think that would be fatal. They get their timber almost at their door and they should be able to do without protection. The whole thing is due to bad management.

Dr. Matthai.—Apart from the question of management, supposing we raised the duty and thus made the tea chests more expensive, I am asking you whether one result would be that people would use more shook boxes.

Mr. Cumming.—I don't think that anyone will go back to shook boxes.

President.—You have just told us that the Assam Company has gone back to shooks?

Mr. Cumming.—Undoubtedly they have, but I cannot account for it. At one time they would have nothing but simul shooks and I remember the Sissi Saw Mills who had the contract had to buy simul shooks from the man over at Dihingmukh and pay an anna or two more and make up the Assam Company's order. The result was that the Sissi got the orders and the man at Dihingmukh supplied the shooks. The Sissi purchased the shooks which had to come down the Dihing and then down the Brahmaputra and then supplied them to the Assam Company.

President.—Supposing, owing to an increase in the duty, the price of 3-ply chests was pushed up, you don't think that it would stimulate the business for shook boxes?

Mr. Cumming.—I don't think it would, with the tea garden managers' permission anyhow. The 3-ply chests are more easily stored and better in every respect in comparison to the old shooks. The latter you have to take out often and sundry them. There is a tremendous lot of money wasted thereby on these shooks.

President.—The main cause of the comparative failure of the Company is defective management.

Mr. Cumming.—Yes.

President.—Could you indicate the items in costs where the defective management is reflected?

Mr. Cumming.—I visited the mill but I have no recent experience, and I do not know what the position is now. But when the company was started first, they absolutely threw away their money. They got the machinery from America during the war and it was lying down there for one year without being installed.

Dr. Matthai.—Why exactly do people prefer the 3-ply chests to shooks?

Mr. Cumming.—The 3-ply chests are cleaner, nicer, more easily stored, more easily made up—everything to their advantage. The marketing of the Assam Saw Mills chests is not however so good as that of the home chests. You get imported boxes in packets of dozen, everything complete—mountings, nails, paper, lead everything in the packet; whereas the Assam Saw Mills send them with hoop iron round them. The corners get broken occasionally on the way and then the mountings have to come from Calcutta.

President.—You say that the packing is bad.

Mr. Cumming.—Their marketing is bad. I have never used the chests made by the Assam Saw Mills in my garden. There again the question of vested interests comes in. I have always used the Imperial. I consider even now that the Imperial is the best chest in the market.

President.—In what way is it superior to the Assam Saw Mills chest?

Mr. Cumming.—In the matter of packing and mounting. As far as the actual chest is concerned, I don't think that it is one whit better.

President.—I understand as regards these European chests when they go to England, the various companies have definite arrangements by which they take the boxes back after the tea has been used and re-exported them to India.

Mr. Cumming.—I have never seen a re-exported box.

President.—Would it be possible to distinguish a re-exported box?

Mr. Cumming.—I should think it would be possible.

President.—As far as you are aware, is there any arrangement by which they re-export the chests?

Mr. Cumming.—Not as far as my own company is concerned. We get no return for the boxes whatever.

President.—There is no arrangement between the tea companies and the manufacturers?

Mr. Cumming.—Not as far as I am concerned. I do not know what the other people do. We used the Imperial Company's boxes from 1910 to 1922

and then went over to the Planters Stores. They have got special 3-ply boxes now.

President.—As regards the Assam Saw Mills boxes they have no arrangement I suppose by which they take their boxes back?

Mr. Cumming.—Not that I know of.

President.—As far as you are aware, in that respect the imported box has no advantage over the Indian box?

Mr. Cumming.—None, as far as strength or look is concerned. It is a nice looking box as far as I can make out. It is equally strong, if not stronger than the imported box. You can kick it and still nothing happens to it. As regards the tremendous damage done during transit, it is not done in the ocean-going steamers. It is only done in the steamers from Dibrugarh to Calcutta. If you see them loading, it would make your hair stand on end.

President.—We have been told that since last year there has been a very large reduction in the price of imported chests. Have you any knowledge of that?

Mr. Cumming.—I have not heard of that.

President.—The Companies tell us that the price of the imported box has come down from Rs. 3-10-9 to Rs. 3-1-6.

Mr. Cumming.—I have not heard of that. I have been away for 2½ years. I do not know what has really happened.

Dr. Matthai.—It was very much higher during the war.

Mr. Cumming.—Yes. In fact, we were getting them from Japan during the war?

Dr. Matthai.—Before the war, did you ever use 3-ply wood chests?

Mr. Cumming.—Yes, I used these as far back as 1910.

Dr. Matthai.—Before the war, the price was much lower?

Mr. Cumming.—Much lower.

Assam Railways and Trading Company's chests.

Dr. Matthai.—Have you visited the Assam Railways and Trading Company's factory?

Mr. Cumming.—No, but I think that it is more up to date.

Dr. Matthai.—Have you seen their chests?

Mr. Cumming.—Yes.

Dr. Matthai.—How do their chests compare with the Assam Saw Mills chests?

Mr. Cumming.—Almost the same.

President.—You have not heard of any complaints about their fittings?

Mr. Cumming.—I have never had any dealings with the Assam Railways and Trading Company. They have been supplying boxes only for the last two years. I have only seen their sample box and nothing beyond that.

Veneers for ceilings, etc.

President.—Have you seen veneers used for ceilings?

Mr. Cumming.—They use it up here. The panels also are made of these.

Dr. Matthai.—Is it less expensive than the ordinary kind of ceiling?

Mr. Cumming.—It is. Formerly they used to tie a piece of canvas and coat it with lime.

President.—Compared with teak ceiling it is much cheaper, is it not?

Mr. Cumming.—There is no comparison. The price of teak will be about Rs. 7-8-0 per c.ft.

President.—What would this be per c.ft.?

Mr. Cumming.—I could get you rates if you want. There are samples up here at Gulam Hyder's.

President.—You think it is cheaper than teak ceiling?

Mr. Cumming.—There can be no comparison at all.

President.—So that if they pushed up their sales by advertising there would be a future for the 3-ply industry for ceilings and so on?

Mr. Cumming.—Yes. In fact the Assam Railways and Trading Company advertises in the papers for walls and ceilings, but the Murkong Selek Company does not, as far as I know.

President.—In that case there is no reason why they should not be able to supply in the Calcutta market?

Mr. Cumming.—No. But I do not think that they are able to make any more veneer than they dispose of at present.

President.—You mean that their machinery cannot turn out more?

Mr. Cumming.—I don't think they can.

President.—I take it, in your opinion, the Assam Saw Mill factory has been over-capitalised and that the present plant is not capable of turning out sufficient ply wood to enable them to get a return on their capital?

Mr. Cumming.—That is really what it is, in my opinion. Of course I am not an expert. The American machinery which they bought during the war and for which they paid 200 per cent. more than what they could get it at now would be a little out of date. I know that the engine went wrong last year. They cannot blame the shook industry for that.

President.—For how long was it under repairs?

Mr. Cumming.—I think they got a new one. I saw the main shaft of the engine at the Dibru-Sadaiya railway workshops being repaired, and the mill was closed down because of that. They had not anything to go on with.

President.—The actual capital of the company not only covers the 3-ply machinery but also the saw mills?

Mr. Cumming.—Yes, and the original price they paid for the saw mills was enormous. They bought nearly all the saw mills in Assam.

President.—In fact they made something of a corner.

Mr. Cumming.—Yes.

President.—Would you mind running through the list of saw mills they have given pointing out the mills purchased by them?

Mr. Cumming.—Hopewell, Tezpur, Sissi, Meckla, Bordutti and Saikwa were the mills purchased by them?

President.—Was there any particular object, so far as you are aware, in purchasing all these mills?

Mr. Cumming.—They wanted to make a corner. I was a Director of Sissi when it was sold.

President.—Could you tell us what they paid for it?

Mr. Cumming.—Not off hand.

President.—So far as you know, was it a reasonable price or an excessive price?

Mr. Cumming.—Perhaps excessive.

President.—To what extent?

Mr. Cumming.—I cannot tell you. Sissi and Hopewell were working at a profit when they bought them. Hopewell belonged to Mr. Wood and they took him over and made him the Director of the Company. Meckla was practically the Doom Dooma and Jokai Company. Mr. Harrison was in charge of it. That mill was working at a handsome profit, and I believe it is still making shooks and scantlings.

President.—It now belongs to the Assam Saw Mills and Timber Company?

Mr. Cumming.—Yes.

President.—It is still working at a profit?

Mr. Cumming.—I think so.

President.—It is only on the 3-ply that they are losing?

Mr. Cumming.—Yes. From the report I have given you it will appear that they are losing on the 3-ply.

President.—Mr. Jacob was telling us in regard to Tezpur that though it would be worth only about Rs. 30,000, they paid about two lakhs of rupees for it?

Mr. Cumming.—I would not put it at Rs. 30,000, but I believe the money they paid for it was high. It was an antediluvian mill. They made use of it for making shooks, but they had very good concessions. The timber was not difficult to get and they could float it down. It was the concessions they were after. When they took over the mills, they got the timber concessions as well which are now incorporated in the Assam Saw Mills and Timber Company.

Dr. Matthai.—When were they bought, during the war or after?

Mr. Cumming.—After the war I think.

Dr. Matthai.—Are there many tea companies in Assam who are interested as shareholders in the Assam Saw Mills and Timber Company?

Mr. Cumming.—There were a good many at one time. We all thought it was an El Dorado but it was not.

Dr. Matthai.—All the great tea companies have interests in the Assam Saw Mills?

Mr. Cumming.—All the big companies in Assam are London Companies. It is only the small gardens owned by Indian companies who have taken shares in the Assam Saw Mills and Timber Company—I mean individuals like myself and not gardens as such.

President.—Your opinion is that if the company is properly managed, there is a future for the tea chest industry?

Mr. Cumming.—There ought to be. They have got all the appliances and they have got plenty of timber. They cannot afford now to add to the appliances since they came to grief. Their share capital was reduced from Rs. 10 to Rs. 3 and it is now worth fourteen annas.

President.—You don't think that their machinery is entirely up to date?

Mr. Cumming.—It cannot be seeing that they have not been adding anything to the machinery.

Dr. Matthai.—Have they declared any dividend recently?

Mr. Cumming.—Not since the first year.

President.—They declared a dividend in the first year.

Mr. Cumming.—Yes. I don't see that any advantage would come by giving protection to the tea chest industry. On the other hand you would injure the tea industry if the import duty on the tea chests is increased.

President.—At the same time it would not be possible to get rid of the vested interests.

Mr. Cumming.—No. It is not on tea alone that they make money. They make some of their money out of the agencies.

Dr. Matthai.—Have the Assam Saw Mills got an efficient staff?

Mr. Cumming.—They ought to have, seeing that they had a lot of change. As I say I have not been there for three or four years now. It is a fine place: the factory is on the bank of the river; the timber is at their door and it ought not to cost them very much. The timber they use now won't float; it sinks, but they have got tramlines working into the forest.

President.—They can raft their timber down?

Mr. Cumming.—They have got to use some other lighter timber to keep it afloat otherwise it would sink.

President.—Apart from the question of over-capitalization, is there any other disadvantage? They get their timber very cheap: their labour is very cheap and their fuel is also cheap.

Mr. Cumming.—Labour is not cheap in this country. It is all nonsense to say that it is cheap because it is Indian labour. I would not class cheap labour as one of the advantages.

President.—You would not class it as an advantage?

Mr. Cumming.—No: where machinery is concerned no Indian labour is cheap.

President.—Their supervision would be expensive?

Mr. Cumming.—Naturally, you have to pay for the supervision.

President.—And then their overhead charges owing to over-capitalization and loans would also be very heavy?

Mr. Cumming.—Yes.

President.—Then over-capitalization and labour you would classify as the disadvantages, would you not as compared with European factories?

Mr. Cumming.—Yes. Without taking into consideration their capital, they have only made a profit by the sales last year: you can see that by placing sales on the one side and the receipts on the other.

President.—That was the point I was thinking of. If you cut out over-capitalization, what is the reason of their failure?

Mr. Cumming.—That I do not know. I cannot tell you what the reason is, but there it is.

President.—You suggested one reason and that is that the machinery is antiquated.

Mr. Cumming.—It must be because they have not been adding to it, whereas the other company started just two years ago and must be more up to date. Mr. Jacob said that it was more up to date. The Assam Saw Mills machinery came out, I think, in 1918 or 1919 so that the machinery must be old and, as far as I can see, has not been added to.

President.—The Assam Railways and Trading Company came in only two years ago?

Mr. Cumming.—Yes, they started only about two years ago.

Dr. Matthai.—Is the machinery of the Assam Railways and Trading Company British or American?

Mr. Cumming.—I cannot say.

President.—They seem to be doing better.

Mr. Cumming.—I believe they are. I have never made any enquiries but I think that they supply these planks all over.

Should the industry receive Government aid?

Dr. Matthai.—As one who is interested in the tea business would you like the Government to encourage the ply wood industry or not? If you gave a general opinion, what would that be?

Mr. Cumming.—No, the thing is not worth doing if it cannot do without the help of Government. The whole thing is that if they cannot do it just now, they will never be able to do it hereafter. At present they have timber at their door. If they cannot do it now, when are they going to do it?

Dr. Matthai.—People up in Finland who supply all these imported chests are trying to form a combination. As a result of this combination you are likely to have prices raised for these boxes?

Mr. Cumming.—I don't want the Assam Saw Mills to go down—that I can assure you. But I think that they ought to do well. Mr. Kirkpatrick assured me that they could make a box for Rs. 3 with profit and I think that they ought to make a profit. The people at home get their timber from Russia, and make the boxes in England. From England they bring

the boxes to Calcutta and from Calcutta to Assam and still make a profit. Look at the freight that has to be paid. The import duty is of course nothing because it can be recovered. The people in India have not got to do anything like that.

President.—Even with the import price standing at Rs. 3-1-6, you think that they should be able to make a handsome profit.

Mr. Cumming.—Yes.

President.—In your opinion any system of assistance by means of bounties or otherwise merely tends to encourage inefficiency, is that correct?

Mr. Cumming.—That is correct.

Dr. Matthai.—Where are these tea chests delivered? Supposing you buy these chests, are they delivered in your garden?

Mr. Cumming.—At the nearest railway station.

Dr. Matthai.—Whereas the tea is sold in Calcutta.

Mr. Cumming.—Yes.

Dr. Matthai.—You send your tea in these chests to Calcutta.

Mr. Cumming.—Yes.

Dr. Matthai.—Whereas the imported chest has got to come from England to Calcutta and from Calcutta to Assam and again from Assam to Calcutta.

Mr. Cumming.—Yes. I do not know what the freight is now but it is very high up the river. The River Steam Navigation Co. and the railways have put up their freight very considerably within the last two or three years.

President.—These companies here have a definite advantage in that case.

Mr. Cumming.—Yes.

Recovery of the import duty.

President.—As regards the recovery of duty paid on the imported chest, have you had any experience?

Mr. Cumming.—No.

President.—Would it be a troublesome business to identify the boxes?

Mr. Cumming.—I should not think so. The Imperial box has a mark on the chest. If that is shown, there ought to be no difficulty. But I believe, reading the papers a few days ago, there is a certain amount of difficulty in convincing the Customs.

President.—You have not recovered any?

Mr. Cumming.—None whatever.

President.—The 15 per cent. duty has not really been seriously felt by the tea companies?

Mr. Cumming.—No.

President.—It makes very little difference to you in the marketing of your tea.

Mr. Cumming.—The only thing that would help the Assam Saw Mills is the import duty. To give them a bounty is to encourage inefficiency. They have not started lately: they have got years of experience.

President.—As regards the 15 per cent. duty, no considerable hardship would be felt if the rebate system was abolished?

Mr. Cumming.—I don't think so. I don't think that it is claimed in many cases. As far as my particular place is concerned, we use about 3,000 boxes and we have never claimed any rebate.

President.—It would come to a very small amount?

Mr. Cumming.—Yes. I don't think it is worth while making a fuss about it.

Dr. Matthai.—The abolition of the export duty is a great relief to the tea companies?

Mr. Cumming.—Yes to the home companies but not to those selling in Calcutta.

President.—Has it not made any difference to your price in Calcutta?

Mr. Cumming.—Not a bit. The point is we would have no objection what-over to the export duty if the money were sent back to Assam, but we were awfully annoyed that the export duty went to the Imperial Government. We wanted it back to our own province for roads and so on. That was the general ground of complaint against the export duty.

President.—Do not the tea companies registered in India export their tea?

Mr. Cumming.—They do.

President.—The export is not confined to English registered companies?

Mr. Cumming.—No. We have sent our Gillapukri tea to England when we thought the Calcutta market was not sound.

Dr. Matthai.—What proportion of Assam tea is consumed in India roughly?

Mr. Cumming.—I do not know, but the demand for tea in India must be very large. The other day I saw 790,000 lbs. of Java tea coming to India: what was the Java tea doing in India? Then again China tea is coming to Calcutta. I do not know whether it goes back again in the shape of export.

President.—That may be for blending.

Mr. Cumming.—Possibly, for Brook Bonds, Liptons, Lyons and other people.

President.—Do Brook Bonds use the 3-ply chest?

Mr. Cumming.—Most people do.

President.—You mean the Indian 3-ply chest?

Mr. Cumming.—That I do not know.

Conservation of Forests, Assam.

WRITTEN.

(1) *U. O. No. K.358, dated 14th July 1927, from the Conservator of Forests, Assam, to the Secretary, Tariff Board.*

With reference to the figures asked for regarding Simul plantations.

The total cost incurred works out to Rs. 8-14-0 per 100 trees, of 8' high in the 2nd year.

I have worked out the cost allowing for 35 years' rotation and 5 per cent. compound interest, at Rs. 35-8-0 at 35 years, and the receipts then at Rs. 50.

2. There has been no disease among the Simul, except a small amount of defoliation.

(2) *Letter from the Tariff Board to the Conservator of Forests, Assam, No. 641, dated the 28th July 1927.*

I am directed by the Tariff Board to ask if you would kindly forward as soon as is convenient a copy of the Enumeration Report of Sadiya Forest Division and also of the remaining notes on the plantations of trees suitable for the manufacture of ply wood, extraction costs, and on the quantities of hollock, hollow etc. in the forests within reach of the existing ply wood factories and saw mills, promised by you when giving oral evidence in Shillong on the 27th June, 1927.

2. I am also to invite your attention to Forest Bulletin No. 39 on 'Hollong Timber' by Mr. R. S. Pearson, paragraph 7, and to enquire if the estimates of outturn given therein may be regarded as reliable and to state that it is presumed that the area leased to the Assam Railway and Trading Company is part of that for which these estimates were made. In the event of this presumption being incorrect, would it be safe to use these estimates as a guide to the amount of available timber in the Company's area.

(3) *Letter No. K./426, dated the 13th August 1927.*

With reference to your No. 641 of 28th July 1927, I regret the delay in replying but it has been very difficult to obtain the information you require. There is no enumeration report on the Sadiya Forest Division, but merely a file containing masses of notes on separate blocks of forests, while the results have been tabulated only according to areas of different classes of forests and not according to yield; this classification into classes was done in many cases only by observation and not by enumeration, and in other cases only a very small percentage of the area was enumerated.

In only one case has an attempt been made for estimating the yield, viz., for the Poba Reserve, where the available quantity of hollock is given as a little over 4 million cubic feet. As regards the whole of the forests, I have worked out from the enumeration figures given the following rough figures per acre hollock, over 6' in girth:—

	No. of trees per acre.
1st class forest	5
2nd „	2½
3rd „	1

The areas of these three classes are given as—

	Acres.
1st class	4,375
2nd „	9,365
3rd „	9,365

This gives roughly 100,000 trees, and as 200 cubic feet per tree can be taken as the rough yield, there should be 20,000,000 cubic feet of hollock. Other species of value for three-ply have not been enumerated separately.

There are no plantations old enough yet from which any reliable data can be extracted, except the Simul plantations, the area of which as far as I remember, I gave to the Board.

I have worked out extraction costs, which vary tremendously, but appear to average Rs. 22 per ton at a Saw Mill.

2. The figures given in Mr. R. S. Pearson's Forest Bulletin were obtained, as you presume, from the area now leased to the Assam Railway and Trading Company, but at that time the Lakhimpur Frontier Tract was not in administered territory, and was not taken into account in estimating the quantity of hollock available: the inclusion of this tract will certainly double the figures of annual outturn mentioned in the bulletin.

The figures are reliable as a minimum of outturn, but as mentioned in the remarks column, a very much larger quantity is almost certainly available.

CONSERVATOR OF FORESTS, ASSAM.

B.—ORAL.

Evidence of Mr. E. R. Le GRAND JACOB, I.F.S., recorded at Shillong on Monday, the 27th June 1927.

Application of the tea chest making companies.

President.—Mr. Jacob, I suppose you have read both the applications we have received from the Assam Saw Mills and Timber Company, Limited and the Assam Railways and Trading Company, Limited. Before we ask you any questions on these two applications, we would like to know the exact situation of the mills concerned. Could you give us some description of the exact position of the two mills so that we may have it on record? Let us first take the Assam Saw Mills and Timber Company: where are their factories situated?

Mr. Jacob.—Their main 3-ply factory is at Murkong Selek about 50 miles above Dibrugarh on the right bank of the Brahmaputra.

President.—How far is it from the nearest railway station?

Mr. Jacob.—About 50 miles by river.

President.—Where are the others situated?

Mr. Jacob.—The Borduti is on the Subansiri river which runs into the Brahmaputra at Subansirimukh; which is exactly opposite Dhansirimukh. I think it is about 110 miles from Dibrugarh.

President.—Is it in the same district?

Mr. Jacob.—Borduti, where the Borduti mills are situated, is in the Lakhimpur district and the other is on the frontier in the Sadiya district.

President.—Is that on the railway line?

Mr. Jacob.—There is no railway anywhere near it.

President.—Then the Assam Saw Mills have two factories?

Mr. Jacob.—Yes; they had originally about six saw mills.

President.—I want to be clear about it. The first one that you were mentioning is the 3-ply mill?

Mr. Jacob.—Yes.

President.—And the second one is the saw mill?

Mr. Jacob.—Yes, and the third one is (Meekla saw mills) is at Laimakuri which is on the Buri Suti, which is a channel leading off from and returning to the Brahmaputra. It is 15 to 20 miles below Murkong Selek.

President.—And that also is not on the railway?

Mr. Jacob.—No.

President.—Now, as regards the Assam Railways and Trading Company, where is their factory situated?

Mr. Jacob.—Their factory is situated at Margherita on the Dibru Sadiya Railway and only a few hundred yards from the Margherita railway station.

President.—You have read the application from the Assam Saw Mills and Timber Company. They give a brief history of the industry from which we gather that to some extent the 3-ply industry was initiated by Government, that is to say the Government stimulated the flotation of these companies.

Mr. Jacob.—They have always said that but I really do not know; I have nothing in my files to show how far that is true. It might be possible to get some information on that point from the files in the Secretariat.

President.—A part of the correspondence was in connection with the Munitions Board about which you have no information?

Mr. Jacob.—No.

President.—There is a reference in their application to a meeting at Government House on the 27th July 1917, at which the Chief Commissioner is reported to have said "In the first place, this tea box industry should be looked upon as a war contribution." Have you anything on record about this meeting?

Mr. Jacob.—I know there was a meeting at Government House but on looking through my files I could not find anything about it. I have got nothing in my files except the correspondence about the details of the lease in the beginning of September 1918.

President.—Which company was that?

Mr. Jacob.—The Surma Valley Saw Mills.

President.—In regard to that they state that the lease to extract timber was granted only provided they erected a veneer plant within two years. Is that correct?

Mr. Jacob.—Yes.

President.—So that it would be a reasonable inference that it was Government's policy to have veneer plants established in the province?

Mr. Jacob.—Yes.

President.—And that some encouragement was given to the firms?

Mr. Jacob.—Yes.

President.—As regards the war time services of the saw mills and the shook mills, have you anything in your records? There are various quotations in their application which have reference to this. One is a letter from the Inspector General of Forests to the Conservator of Forests, Western Circle, Assam, dated 16th January 1916—

"With the approval of the Government of India, I am writing to tell you that the position has now reached an acute state it seems certain that it will be necessary to ship monthly to Mesopotamia some 9 lakhs of cubic feet of timber and that any shortage in this supply will be a matter of great embarrassment to the conduct of military operations."

I want to know whether the Forest department have any correspondence on the subject.

Mr. Jacob.—I don't think I have got any. We were corresponding directly with the Munitions Board at the time for all forest supplies.

President.—So that for any confirmation of that we will have to write and obtain it from the Government of India?

Mr. Jacob.—I should think so.

Dr. Matthai.—There is just one point that occurs to me. Apparently from what they say in the representation the industry was in some way initiated at the suggestion of Government as a war measure. During the war the real point was that there was a falling off in the imports of tea boxes from abroad, not necessarily of ply wood boxes. I don't quite see how the question of establishing the ply wood industry as distinct from shook boxes arose in that connection?

Mr. Jacob.—I don't think it did. Before the war they were supplying ordinary country shook boxes.

President.—I take it that the mills which were previously supplying shook boxes, at any rate some of them, were later incorporated in the Assam Saw Mills and Timber Company?

Mr. Jacob.—Yes.

Dr. Matthai.—All that I was suggesting was that if these people were trying to strengthen their case for protection by suggesting that the ply wood industry was rendered necessary as a result of emergency during the war, that would not entirely be borne out by circumstances?

Mr. Jacob.—I don't think so. The question of ply wood as against country shook boxes is merely a case of advantage to the tea trade in general.

Dr. Matthai.—And not as a war measure.

Mr. Jacob.—It has nothing to do with the war. The advantages of ply wood chests are that, in the first place the boxes are much lighter for the same strength, in the second place you have got the tare more or less the same and in the third place less wood is used.

Dr. Matthai.—I find in the leases that these two companies have executed with the forest department there is a special condition that a veneer factory must be established.

Mr. Jacob.—Yes.

Dr. Matthai.—But I think that is an after development. The lease was executed somewhere in 1921.

Mr. Jacob.—Yes, in 1921-22.

President.—That is post war?

Mr. Jacob.—Yes.

President.—There is just one question about the Government policy: how far does the Government policy remain unchanged?

Mr. Jacob.—It has so far remained almost unaltered. For instance last year the rate for the Assam Saw Mills boxes should have been raised but Government have allowed them the old rate for one year more, that is up to 1st July this year, the old rate being 6 pies per c.ft. I am just sending my proposal up now to the Government as to what the rate should be for next year.

Location of the factories in regard to the jungles.

President.—Let us go back to the location of the factories in relation to the forests. Let us take the Assam Saw Mills and Timber Company to start with. They have three saw mills, have they not?

Mr. Jacob.—They had six of which Hopewell, Tezpur, and Sissi were closed down after they were taken over by them. Of the others Borduti was closed for lack of orders and Furkating* was also closed. Meckla is still working. The other saw mills in Assam, viz., Ghooroonia, Halkutta, Bordeobam, Lakhapore, Saikwa, and Surma, are all in existence although they are closed.

President.—They say Saikwa was demolished for lack of orders?

Mr. Jacob.—I don't know. I have not seen the mills since 1922, but it is not working now.

President.—So that of these mills a certain number could be re-opened if the demand revived?

Mr. Jacob.—Yes. I am not quite sure about Hopewell as I do not know whether they have left the machinery there or not.

Dr. Matthai.—All these mills shown in the list are mills for manufacturing ordinary shook boxes, are they not?

Mr. Jacob.—Yes.

Dr. Matthai.—Supposing the demand for boxes revived, it would result in an increased production of ply wood boxes?

Mr. Jacob.—Yes.

President.—I suppose they use the shook boxes for country orders?

Mr. Jacob.—I can't say, because the Assam Company purchased a lot of these boxes and their tea is exported to a large extent.

President.—Of these saw mills that you say are at present working, one is a ply factory and there are two saw mills?

Mr. Jacob.—There is one saw mill working, now, namely Meckla. Borduti has just been closed down.

President.—So that there is only one saw mill at present?

* Furkating did not belong to Assam Saw Mills and Timber Company.

Mr. Jacob.—Yes.

President.—This saw mill just saws the timber into suitable sizes for the ply factory. Is that correct?

Mr. Jacob.—It works independently. The actual thing they are making is small shooks for making into boxes. When I was there last December that was the only thing they were doing.

President.—Then so far as this enquiry into the three ply industry is concerned we can rule out this saw mill?

Mr. Jacob.—Yes.

President.—So that all we are concerned with at present is the one three ply mill?

Mr. Jacob.—Yes.

President.—This 3-ply mill derives its supply of timber from which forests?

Mr. Jacob.—At present they are working chiefly near Murkong Seleky at Pasighat.

President.—How far away from the mill is that situated?

Mr. Jacob.—That is situated roughly about 30 miles up the Dihong and 20 miles from there to the factory, that is about 50 miles in all.

President.—Is that all by river?

Mr. Jacob.—Yes.

President.—Do they extract hollock entirely from this particular jungle?

Mr. Jacob.—Yes.

President.—They have a trainline have they not?

Mr. Jacob.—Yes. Their factory is in the forests to a certain extent.

President.—What is the name of the forest?

Mr. Jacob.—I think it is called the Poba.

President.—That is how far from the factory?

Mr. Jacob.—Within about four miles of the factory.

President.—What is the length of the trainline?

Mr. Jacob.—About 7 or 8 miles I think.

President.—What timber do they extract?

Mr. Jacob.—Hollock, and simul as well.

President.—Is there a considerable supply of simul there?

Mr. Jacob.—Yes.

President.—Could you give us any idea of the quantity?

Mr. Jacob.—I am afraid I cannot give you any figure at all.

President.—As regards the other factory, viz., the Assam Railways and Trading Company, that is situated at Margherita?

Mr. Jacob.—Yes.

President.—What concession have they got?

Mr. Jacob.—That company has at present a lease in what is called the Lakhimpur frontier tract and also a second one which is in abeyance.

President.—From Lakhimpur forest do they extract simul?

Mr. Jacob.—No, hollock for 3-ply and hollow for sleepers.

President.—Hollow is an entirely different wood?

Mr. Jacob.—Yes.

President.—This hollow is not used for tea chests at all?

Mr. Jacob.—I don't think they are using anything but hollock at Margherita.

President.—This forest round the Lakhimpur frontier is a hollock forest.

Mr. Jacob.—Hollock and hollow mixed.

President.—Is there any considerable supply of simul in this direction?

Mr. Jacob.—I don't think there is very much.

President.—Could we say that the factory would never be able to depend on the supply of simul?

Mr. Jacob.—They are not depending on simul at all.

President.—This jungle which they have not yet worked, what about that?

Mr. Jacob.—It contains a large quantity of magnificent hollow and a fair amount of hollock.

President.—Could you give us an estimate of the amount of hollock there?

Mr. Jacob.—We have had some enumeration made there, but I don't think they are accurate. We would probably start working plans in these areas shortly, but I am afraid I cannot at present give you any figure.

President.—Could you give us an estimate of the hollock available in these three blocks which they have and also the amount of hollock available for the factory at Margherita?

Mr. Jacob.—I have already written to the Divisional Forest Officer asking him whether he has got any estimate.

President.—Generally speaking you think that these two factories have an ample supply of hollock?

Mr. Jacob.—I am quite sure.

The factories' market.

President.—In relation to their market have you any idea where they sell their 3-ply? They sell some to the tea gardens, but we have not received from them any definite statement as to where they effect their sales mostly. Would they have to export them to some central place, I mean to say will they have to sell at a certain station on the Assam Bengal Railway?

Mr. Jacob.—They sell some at Margherita, the others come down to Dibrugarh either by country boats or by paddle steamers which take a lot of the cargo on that side of Assam.

President.—Are these steamers run by the company itself?

Mr. Jacob.—They are service steamers run by the River Steam Navigation Company.

President.—Have you any idea what the rate will be from the factory to Dibrugarh?

Mr. Jacob.—I really do not know.

President.—This hollock which you say is used for the 3-ply chests, could you give us some idea of its quality? Is it hard wood?

Mr. Jacob.—It is medium hard wood and as a general rule has very even grain although it is liable at times to be a little bit twisted. But as a general rule it has very even grain and it has a greyish marking which takes a polish very well.

President.—Is it a brittle wood?

Mr. Jacob.—No.

President.—So far as you are aware, is the timber treated in any way before it is put into the veneer machine?

Mr. Jacob.—They were making some sort of experiment; I do not know exactly what that was. All that I know is that the wood has to be soaked in water before making into veneers.

President.—Speaking generally both in the match trade and in the tea chest trade they use soft wood for veneer, and possibly in regard to hollock they would have to treat it in some way to soften it.

Mr. Jacob.—As far as I know it is merely soaked in a tank, before being put into the veneer machine.

President.—That is the general treatment for all wood.

Mr. Jacob.—The only way they were treating the wood so as to avoid mildew was by using some soda compound. The last time I was up there the manager showed me some hollock which he said was liable to get a little mildewed.

Mixed plywood.

President.—We notice from one of the applications that they have recently changed the material with which they were making the boxes. Previously they used to make the whole box entirely of hollock, but now they make the centre hollock and the sides simul.

Mr. Jacob.—Yes.

President.—Hollock is very easily obtained in large quantities and the royalty you charge is small, whereas simul is scattered and probably the cost of extraction would be higher, and we were wondering why it was that they changed from pure hollock boxes to hollock and simul mixed?

Mr. Jacob.—I do not know. As a general rule simul is nearer the rivers than hollock; it is lighter wood, so I think it would be easier to extract.

President.—They will have to extract by rafts?

Mr. Jacob.—Yes.

Dr. Matthai.—Is it much lighter than hollock?

Mr. Jacob.—Yes.

President.—That will affect the weight of the chests?

Mr. Jacob.—Yes, and simul, I fancy, cuts easier on the peeling machine.

President.—That is true. Do they use hollock for any other purpose?

Mr. Jacob.—There is going to be a big demand for hollock for the sleeper trade.

Dr. Matthai.—Not hollow?

Mr. Jacob.—Both. It has proved quite suitable for sleepers but whether we would be able to supply much I do not know. It is almost too valuable for sleepers. It is a quite valuable furniture wood.

Dr. Matthai.—As a medium hard wood hollock would be rather unsuitable for sleepers, would it not?

Mr. Jacob.—No. It would be quite suitable for sleepers after being treated with creosote.

President.—So it is quite probable that the price of hollock will go up?

Mr. Jacob.—Most certainly I should say.

President.—You are taking that into account in fixing your royalty, I suppose?

Mr. Jacob.—Yes.

Available labour.

President.—As regards labour supply do you know anything about it?

Mr. Jacob.—I think for the factory the labour has to be imported, but for the jungle work a large amount of that is done by the Miris who are river-side inhabitants.

Dr. Matthai.—There would be no difficulty in getting Miri labour?

Mr. Jacob.—As long as they are paid well there would be no difficulty. I think rafting is usually done on a contract basis?

President.—Could you give us any idea of the wages? If you could give us the rate per log that would serve our purpose.

Mr. Jacob.—I think they are paying so much per c.ft., I can't exactly remember how much. I think it was 3 annas per c.ft. or something like that delivered at the mill, as compared with 7 annas if they have to take the timber over the tramline.

President.—So that it is cheaper to float it down right through?

Mr. Jacob.—Yes, provided you have got it near enough to the river.

President.—What fuel do they use on the tramline?

Mr. Jacob.—Wood; they use the refuse from where they are working.

President.—What fuel do the Assam Railways and Trading Company use?

Mr. Jacob.—They use nothing but coal.

President.—What is the reason?

Mr. Jacob.—They are on the collieries so to say.

President.—How far is that from the factory?

Mr. Jacob.—About five miles from Margherita.

President.—Do they get good coal?

Mr. Jacob.—I think it is supposed to be the best coal in India, even better than the Bengal coal.

President.—I think we asked you to give us a general estimate of the amount of hollock, did we not?

Mr. Jacob.—Yes. I will let you have the results of the enumerations in future when we get them from the Divisional Forest Officers.

Transport.

Dr. Matthai.—As regards transport, in the Assam Saw Mills area I suppose, from where the felling is done right down to the factory, the wood is carried by the forest tramways?

Mr. Jacob.—They are nearly all brought down by river now. That is very much cheaper than by tramway.

Dr. Matthai.—There is no dragging to the river?

Mr. Jacob.—They have to drag it to the river.

Dr. Matthai.—How is that done?

Mr. Jacob.—By elephants.

Dr. Matthai.—Both as regards hollock and simul?

Mr. Jacob.—Yes.

Dr. Matthai.—You say there is considerable risk in maintaining large herds of elephants?

Mr. Jacob.—Yes; elephants are delicate beasts.

Dr. Matthai.—And there is difficulty about supervision?

Mr. Jacob.—They want a lot of supervision otherwise you cannot get the best work out of them.

Dr. Matthai.—Unless the operations are very closely supervised, the cost per ton mile might go up?

Mr. Jacob.—Yes.

Dr. Matthai.—From the forest point of view you think you would be extracting at a reasonable price if you were extracting at Rs. 2 per ton mile?

Mr. Jacob.—Yes.

Dr. Matthai.—And anything above that would be extravagant?

Mr. Jacob.—That is so. There is one point I would like to mention. Probably some of the elephants are hired; Rs. 90 is what we have to pay for our elephants, but I think Rs. 90 is what they pay for hired elephants also. I know that is roughly right because only a couple of years ago a man told me that he paid Rs. 500 for six months for elephant catching.

President.—Is it possible to hire elephants for piece work?

Mr. Jacob.—Yes.

President.—What is the rate?

Mr. Jacob.—I could not tell you, but it is done. I fancy the Assam Saw Mills hire elephants at so much per ton.

President.—Have you any record?

Mr. Jacob.—We have never done it. We only hire at so much per month.

President.—I suppose the same rates would roughly apply to the piece work?

Mr. Jacob.—I think it would work out at about the same rate.

Other uses for hollock.

Dr. Matthai.—We were talking about the market for hollock other than tea chests. Do you think that market is likely to increase hereafter?

Mr. Jacob.—Yes, this timber is getting more and more in demand.

Dr. Matthai.—How does hollock compare with other timber? Would you regard hollock as one of your valuable timbers?

Mr. Jacob.—Yes.

Dr. Matthai.—How would you compare it with sal? Would it be suitable for most of the purposes for which sal is used?

Mr. Jacob.—It is not so strong as sal and not white ant-proof but, on the other hand, it is not so heavy and is easy to work. I have used it a good many years ago for walling forest bungalows and have found it quite satisfactory.

Dr. Matthai.—If hollock has been recognized for such a long time as a good timber, why is it that it has not had a market for other purposes?

Mr. Jacob.—There was no market for any timber from Assam because there were nearer forests from which they could send timber to Calcutta, and East Bengal. The timber in the other forests has since been cut or destroyed and now the demand for this timber is increasing. Formerly they could send the timber to the big markets very much cheaper than we could from Assam.

Dr. Matthai.—What is the general financial position of the Forest department? Do you make a nett revenue every year?

Mr. Jacob.—Our surplus is about Rs. 17 lakhs over the expenses. It is roughly Rs. 32 lakhs revenue and Rs. 16 lakhs expenditure.

President.—I understand investigations have recently been carried out for treating wood for sleepers. Was hollock treated?

Mr. Jacob.—This is one of the five definitely accepted by the railways.

President.—Have you got any contract with the railways?

Mr. Jacob.—We have not quite finished that, but we have drawn up an agreement with the Assam Bengal Railway. I had a discussion with the Chief Engineer who came up here sometime ago.

President.—For how long is the contract proposed to be?

Mr. Jacob.—It is more or less an indefinite one but the price of sleepers is to be for five years.

President.—How many sleepers?

Mr. Jacob.—Two lakhs per year minimum which will be increased to three on one year's notice.

President.—And the price?

Mr. Jacob.—Rs. 2-3-0 per sleeper delivered any station over certain sections of the Assam Bengal Railway.

President.—Have you any contract with any other railway?

Mr. Jacob.—Only for sal.

Dr. Matthai.—The real advantage of ply wood, as I understand it, is this. If you have, for example, a single plank made of hollock half an inch thick and a 3-ply plank half an inch thick, also made of hollock, I take it that the ply wood would be stronger?

Mr. Jacob.—3-ply is 50 times stronger.

Dr. Matthai.—Why is that?

Mr. Jacob.—The centre grain is put in the opposite direction to the outside grain. That is what gives it a tremendous strength. You have two outside ones with the grains running in the same way; in the centre ply the grain runs crossways. That is one of the chief reasons which gives it great strength. Actually the 3-ply is $\frac{3}{16}$ " ; that would be much stronger than a $\frac{1}{2}$ " plain plank.

Supply of simul.

President.—As regards the supply of simul you were telling us the other day in regard to the supply of timber to the Match Company that you had various areas in the north of Lakhimpur planted up?

Mr. Jacob.—That is near Sadiya.

President.—How long ago was that?

Mr. Jacob.—About 14 years ago. I have written for the total area. The only thing I have got in my file is that up to 1916 we had done 458 acres and I think there was a good lot done in 1917 and 1918.

President.—These areas would be available for the Murkong Selek Company?

Mr. Jacob.—Yes; all except a very small portion was done near Murkong Selek.

President.—How far would that area be from the factory?

Mr. Jacob.—At Murkong Selek itself there is some plantation.

President.—The Company says that simul grows to maturity in about 20 years.

Mr. Jacob.—I think 20 years is an under-estimate; I should estimate 35 years which I should consider a better estimate than 20.

President.—It grows to what girth in that period?

Mr. Jacob.—7 feet. I don't think under 6 feet anyhow it attains maturity; it is too soft and spongy until it gets to at least 6 feet.

President.—Then we can take the average as 30 years?

Mr. Jacob.—Yes.

President.—In this particular area they would not be available for another 16 years?

Mr. Jacob.—That is correct.

President.—In the meantime what supplies would be available?

Mr. Jacob.—I am afraid I do not know. If I could give you any figures which would be in any way nearer I would be glad to. You see, a good lot of that area was not even explored up to a few years ago. Up to 1911 you could hardly go into the forests in that area without escort and it was not until the Abor expedition that you could go except along the rivers; even then the Miris were very often being captured and sold into slavery. It is only in recent years that this area has been explored at all.

Rate of growth of hollock.

Dr. Matthai.—Going back to the question of rate of growth, what is the rate of growth of hollock?

Mr. Jacob.—We do not know; we only started hollock plantation a few years ago and it is too early yet to say; and another thing is that there is practically no annual ring in this tree. We have seen some trees where the rings are fairly visible but it is very doubtful whether you can detect it with any accuracy because it is quite possible that one ring may represent three or four years.

Dr. Matthai.—Generally you think it is of much slower growth than simul?

Mr. Jacob.—It is slower than simul but I think it is a fast growing timber.

President.—The Saw Mills Company gives it at 50 to 60 years.

Mr. Jacob.—I think that is quite reasonable.

Dr. Matthai.—I suppose what maturity means with regard to hollock is that it should attain a girth of 14 feet?

Mr. Jacob.—No. A-14 tree will be about 200 years old.

Dr. Matthai.—What girth do you think it would attain in 50 years?

Mr. Jacob.—6 feet.

President.—There is another point in regard to hollock: the Saw Mills Company estimate the amount of hollock available at 140 millions c.ft.

Mr. Jacob.—I don't think that is excessive.

Enumeration in Sadiya.

Dr. Matthai.—I should like to have a few details, if you have any, to how exactly the enumeration in Sadiya was done, what is the extent of the division, what is the total area of the forest and so on.

Mr. Jacob.—I am afraid I cannot tell you. Practically there are no reserves there: the forests are under the political officer and a large amount of the area has not been demarcated at all.

Dr. Matthai.—I understand an enumeration was really attempted for the ply wood industry?

Mr. Jacob.—Yes.

Dr. Matthai.—And that enumeration was done over just a small part of the whole area?

Mr. Jacob.—No. It was done by taking lines half a mile apart and in a straight compass direction.

The trees were counted on these lines and from that we worked out the total number of trees in the area.

Dr. Matthai.—That would be representative of the Sadiya division?

Mr. Jacob.—It gives you a rough idea.

Dr. Matthai.—What sort of staff had you?

Mr. Jacob.—Our ordinary staff.

Dr. Matthai.—What time did they take?

Mr. Jacob.—I do not remember now.

Dr. Matthai.—What is the general result of the enumeration? Do you remember the tonnage they got?

Mr. Jacob.—As far as I remember it worked out to about 8 million tons: it was only done over a portion, namely Pasighat.

Dr. Matthai.—Could you tell me the area of that particular plot?

Mr. Jacob.—I think it would be about 6 square miles.

Dr. Matthai.—Do you think you would be able to send us a copy of the enumeration report?

Mr. Jacob.—Yes. I am sure I shall be able to get that from Sadiya.

Dr. Matthai.—I suppose the results that you got for the particular area might be taken as generally typical of the division?

Mr. Jacob.—No, you cannot do that. You map out a certain area and estimate the timber in that particular area and say this is the amount of simul. You map out another area and find the simul there to be so much, but you cannot generalize for the whole division. They vary in different areas.

Dr. Matthai.—So you think it would be unsafe to generalize?

Mr. Jacob.—Yes.

President.—It is a particularly good block of hollock?

Mr. Jacob.—Yes.

President.—So that you will have to make allowance in applying the average output of this acreage of hollock to other parts of the division?

Mr. Jacob.—Yes.

Dr. Matthai.—Is this supposed to be the best area for hollock or are there any other areas quite as good?

Mr. Jacob.—I do not know of any other area which is as good except the area where the Assam Railways and Trading Company is working.

President.—That is also good?

Mr. Jacob.—Yes; possibly the trees are not quite as big but there is a tremendous lot of it and of very good quality.

President.—In your forests you have other areas where there is a considerable supply of hollock?

Mr. Jacob.—No. We do not get very much hollock further down the valley. It is chiefly at the top of the valley.

President.—Speaking generally could we say that the main portions in which the hollock is scattered are the portions which are at present exploited by the two factories?

Mr. Jacob.—I should think so.

President.—Could you say, if another tea chest factory were to start, which would be the best situation from which hollock could be extracted? Would there be any other suitable location as far as the supply of hollock is concerned?

Mr. Jacob.—I don't think there is.

President.—So that if we were to attempt to estimate the supply of suitable wood, e.g., hollock, for the manufacture of tea chests, we would be justified in confining our attention to these blocks only?

Mr. Jacob.—I think so.

Other trees suitable for tea chests.

Dr. Matthai.—Do you think there are any other trees which might be tried for this industry besides hollock and simul?

Mr. Jacob.—I should certainly think so.

Dr. Matthai.—These soft woods that you mention for the match industry, do you think they would be suitable to any extent for the tea chest industry?

Mr. Jacob.—The difficulty is that you have got to find out which would be the most suitable because the tea takes the flavour of the wood very easily.

Dr. Matthai.—What about machilus?

Mr. Jacob.—I don't think it is suitable. I don't think it grows big enough.

Dr. Matthai.—Cadamba?

Mr. Jacob.—That was formerly used for the old shook boxes but it is a very rough wood: it does not take a good surface.

Dr. Matthai.—It has a smell?

Mr. Jacob.—I don't think so. I think it is a perfect wood as far as that is concerned.

President.—Speaking generally of soft woods I think, one might say that they grow in a scattered manner and are not concentrated in the same way as hollock and, therefore, possibly from the point of view of the factory, they would not be considered as a suitable source of supply?

Mr. Jacob.—I think each wood has got to be treated differently, but there again you get into the trouble of having to sort them out into different species and so on.

President.—It is obviously desirable from the point of view of the tea chest industry that the chest supplied should be a standard chest of a certain quality of wood.

Mr. Jacob.—Yes, and also a standard weight.

President.—So that it would not be desirable to have a number of woods mixed up in the making of tea chests?

Mr. Jacob.—No.

Dr. Matthai.—What about the Buxa Timber and Trading Company?

Mr. Jacob.—That is in Bengal. They were using all sorts of mixed stuff. I actually went over the factory in 1923.

The Companies' Leases.

Dr. Matthai.—These leases that the two companies have, do they cover all the trees in the area: is it a question of clear felling?

Mr. Jacob.—No.

Dr. Matthai.—Their rights extend only to these particular trees or how exactly does it work?

Mr. Jacob.—I think the Assam Saw Mills Company has a right to all timber.

President.—Would you mind supplying us with copies of the leases?

Mr. Jacob.—I shall send you copies.

Dr. Matthai.—They extract only these particular woods although they have a right to remove all trees and timber?

Mr. Jacob.—Yes. They practically confine themselves to two or three species.

Dr. Matthai.—On this question of royalty that you are charging, they now pay 6 pies per c.ft.?

Mr. Jacob.—Yes.

Dr. Matthai.—Assuming that hollock is as valuable a timber as is found in your forests, under ordinary conditions you would auction this area?

Mr. Jacob.—Yes.

Dr. Matthai.—Supposing you auctioned the area instead of leasing it, what is the rate you might have got judging from your experience of auctions here?

Mr. Jacob.—The point is, the whole of that area is so remote and requires so much capital to work, that I very much doubt whether at that time we would have got any offer for it, but now I should fancy it would work out to about 5 to 6 annas per c.ft. if we divided them into blocks for auction.

President.—One might put it as one way of encouraging the tea chest industry if you could get 5 to 6 annas per c.ft. and still not charge it.

Mr. Jacob.—It certainly comes to that. Our standard rate is 3 annas for hollock.

President.—When hollock grows to a very large size, is there any difficulty from the point of view of manufacture of 3-ply?

Mr. Jacob.—No, except that it is very liable to have very large buttresses which have to be hacked off by hand. They sometimes stretch 13 to 14 feet and that makes it very difficult to fell. You have got to cut through all these before you can fell the tree.

President.—That would mean a considerable addition to the cost?

Mr. Jacob.—Yes.

President.—Is there anything in the texture or grain of the tree which is liable to make it cost more?

Mr. Jacob.—No, but the bigger it is, the more likely it is to have a crack in the centre.

Birch wood boxes.

Dr. Matthai.—Have you any impression as to the relative qualities of hollock and the sort of wood of which imported boxes are made, birch for instance. Is hollock definitely inferior, taking wood for wood?

Mr. Jacob.—Birch is easier to work and that is one of its great advantages.

President.—Why is it so?

Mr. Jacob.—It is softer and has more even grain and also it is less liable to split.

Dr. Matthai.—Apart from all questions of workmanship, would the quality of the wood create any prejudice against Indian boxes?

Mr. Jacob.—No. I think hollock veneer boxes just as good as imported chests.

President.—You were saying just now that birch is not so liable to split once it is made into boxes. Is hollock more liable to split?

Mr. Jacob.—No. (This refers to splitting after the box is manufactured).

Equipment of the factories.

Dr. Matthai.—Have you formed any general impression as to the equipment of these two factories? Is the equipment quite satisfactory?

Mr. Jacob.—I certainly think they are very good indeed. At Murkong Selek I don't think they have got sufficient arrangements for drying. (I have since been informed by one of the directors, that the drying apparatus, is sufficient for their present out-turn but not for an increased output).

Dr. Matthai.—Are the arrangements artificial?

Mr. Jacob.—They have not got any artificial method of drying at all.

President.—Is it sub-drying?

Mr. Jacob.—No. Under cover.

President.—There is no short of heating arrangement?

Mr. Jacob.—No.*

Dr. Matthai.—You don't think the equipment of the Assam Railways and Trading Company more expensive?

Mr. Jacob.—No. They have a really very good plant.

Hollock—other uses.

President.—You do a certain amount of construction of bungalows for the forest department: do you use hollock for ceilings?

Mr. Jacob.—Yes. We have found them very satisfactory.

Dr. Matthai.—Do you know whether your Public Works Department use them?

Mr. Jacob.—I do not know.

Dr. Matthai.—I saw a reference in one of the representations that ply wood is being used for aeroplane construction?

Mr. Jacob.—Yes, the propellers are made of ply wood. They were using chiefly Andamans wood.

Dr. Matthai.—It is not an unreasonable suggestion that if the industry develops there is a possibility that way?

Mr. Jacob.—I should think that is quite a reasonable suggestion.

President.—Is there any other purpose for which the ply wood is used?

Mr. Jacob.—It is being used now for tables, chairs and all sorts of furniture.

Dr. Matthai.—Is it being used in this province only or are there any exports to the Calcutta market?

Mr. Jacob.—I cannot tell you.

Dr. Matthai.—In Assam these are being used considerably?

Mr. Jacob.—I am talking generally; I am not talking of Assam. I know the Margherita people are selling a lot of these for ceilings.

Simul Enumeration.

Dr. Matthai.—I have seen it mentioned in an application, that is why I am asking you about it. These people are making a suggestion that if protec-

*The same director has informed me that this is not correct; the veneers are artificially dried before being stacked under cover for complete drying.

tion is given to the tea chest industry the forest department should be asked to make enumeration of the simul. Is that a proposition which the forest department would be likely to consider?

Mr. Jacob.—That just depends on the staff.

Dr. Matthai.—Could you give us some idea of the sort of staff which you would require? I want only a rough estimate.

Mr. Jacob.—It just depends on the area you are going to tackle.

President.—Supposing we took the total area commanded by the two mills?

Mr. Jacob.—It would take a very long time to do it. The jungle is very difficult to get through and you would have to put highly trained men on to it.

President.—Would you put the cost of the enumeration at, say, Rs. 50,000?

Mr. Jacob.—It won't to run to that: I think we should be able to tackle a tolerably big area for Rs. 20,000.

Dr. Matthai.—Could you do it fairly economically by confining yourself to a few typical areas?

Mr. Jacob.—It is generally found in actual practice that a partial enumeration is not accurate as a rule as a basis for future supply.

President.—Would not the value of the enumerations to the mills be that they would be able to know the extent of their operations at once?

Mr. Jacob.—That is incidental to enumerations. We generally prepare stock maps when we do enumerations wherein we show in various colours stocking at so much per acre and so on.

Dr. Matthai.—There are two questions which may arise from these representations on which we want the opinion of the forest department: one is the question of artificial plantation and the other is the question of enumeration. If you would be so good as to send us a note on these two points, it would be very useful.

Mr. Jacob.—I will do that.

The Surma Valley Company.

Dr. Matthai.—The area where the Surma Valley Company had their lease, was that a satisfactory area?

Mr. Jacob.—It was rather more difficult to work than the areas in the Assam valley.

Dr. Matthai.—Difficult in what way?

Mr. Jacob.—It is low hills and in addition there is difficulty about floating because the river is much smaller and you have to rely on getting floods when you want to get your timber down.

Dr. Matthai.—What are the main trees in that area?

Mr. Jacob.—There they were using an absolute mixture.

President.—There is no big supply of hollock there?

Mr. Jacob.—Not very much.

Dr. Matthai.—One might say that the general reason for the failure of the Buxa and the Surma Valley saw mills is that they were working in unsuitable areas?

Mr. Jacob.—I don't think so. I think it was mainly due to lack of proper supervision in the jungle. They had no experience of extracting timber.

Dr. Matthai.—These you would consider as contributory causes, namely that the area was difficult to work and that it was a mixed area?

Mr. Jacob.—I don't think so. We get even now heaps of applications for working that area.

Supervision of extraction work done by the two Companies.

President.—Can you say that the areas in which the Assam Saw Mills and the Assam Railways are working are properly supervised?

Mr. Jacob.—I was up there last November and as far as I could see they were very well supervised.

President.—Were there any points which struck you in connection with the timber on which you could offer any opinion?

Mr. Jacob.—It struck me that in the Pasighat area they were doing very well.

Dr. Matthai.—You have sufficiently large numbers of contractors for forest extraction in Assam?

Mr. Jacob.—Quite sufficient.

Dr. Matthai.—Are they local men?

Mr. Jacob.—Certain number of them and a certain number are Bengalis.

Dr. Matthai.—If further use arose for soft wood, would there be room for small contractors?

Mr. Jacob.—Yes in the Surma Valley we have a large number of smallish fairly financially sound contractors.

I have prepared a note, which I thought might be of interest to you, on the various points they have made in their applications. It struck me that it is quite true that a good many tea companies have big interests in imported boxes, but the local industry must surely have big advantages. I did get some quotations sometime ago and I learned that for birch and aspen—of which they are using a lot—the minimum price was 10d. per foot whereas the Assam Saw Mills and Timber Company are paying 6 pies a c.ft.: that would give them at once an advantage over the others. You will probably be able to get the exact price, but I know they were paying a minimum price of 10d. and it is quite probable that at least 1 shilling has to be paid for the timber used for imported boxes. You will thus see that the company is getting timber at a lower price than the timber is worth.

President.—You mean 10d. per foot in the log?

Mr. Jacob.—Yes.

Dr. Matthai.—Is that fairly recent information?

Mr. Jacob.—Just over a year ago.

President.—We hope we shall be able to verify that.

Mr. Jacob.—Yes. Then as regards this list of mills they have given: none of them was closed until after they had been purchased by the Assam Saw Mills. They were all running perfectly well before. Then there is another point which I would like to mention, namely that they paid too high a price for one of the mills, e.g., the Tezpur mill. I was consulted by one of the directors who asked what I considered would be the value of the mill. It was a branch mill of Sissi Saw Mills Company which was sold in 1897 for Rs. 27,000 including 5,000 boxes and an elephant. I said I thought Rs. 30,000 would be the outside value because there was practically no new machinery. The Assam Saw Mills paid Rs. 1,90,000 for it! Then, again, they say Furkating closed for lack of orders. It was not closed for lack of orders. The whole company was a swindle in my opinion; they had no timber; they had no concession, the position of the mill was far away from the river: they had to cart all their stuff (e.g., timber from the river). They had not even got water for their boilers and in 1919 they were carrying their water in 40 gallon tanks for $\frac{1}{2}$ a mile.

President.—Was that mill taken over by the Assam Saw Mills?

Mr. Jacob.—No. That has nothing to do with the Assam Saw Mills. I am only showing that the reasons they have given for closing the various factories are not quite accurate.

Then they raise the question of freight. The freight to Calcutta is very high, there is no doubt about it.

Dr. Matthai.—What is your remark on that?

Mr. Jacob.—That is probably due to the monopoly the steamer companies have got of the river traffic. Three or four years ago one of the directors of

the Assam Saw Mills told me that he got a very good offer for planks from Calcutta and the steamer company wanted to charge Rs. 64 a ton, the ordinary freight from Calcutta to London at that time being about Rs. 15. That was absurdly high. I believe since then they have reduced the freight.

There is one point in the Assam Railways and Trading Company's representation, where they mention that hollong is not a reserved tree. It has since been reserved. It is quite a valuable timber and is quite strong, but the only danger is white ants.

Conservator of Forests, Bengal.

Telegram from the Tariff Board, dated the 10th September 1927.

Please wire estimated annual outturn available for felling of Simul in area held under lease in the Rajabhatkhawa Working circle by Jalpaiguri Timber and Lead Mills.

Telegram No. 96, dated the 17th September 1927, from the Conservator of Forests, Bengal.

Your wire 751 of 10th, possible annual outturn of Simul from Companies lease eighty thousand cubic feet with 10 years cycle.

Forest Research Institute, Dehra Dun.

A.—WRITTEN.

- (1) *Letter No. 558, dated the 30th June 1927, from the Tariff Board to the Forest Economist, Forest Research Institute, Dehra Dun.*

I am directed to say that the Conservator of Forests, Assam, has informed the Tariff Board that he believes that certain tests have been made by you in respect of the suitability, etc., of various timbers for the manufacture of ply-wood. I am to ask, if this is the case, whether you would be so kind to supply the Board with results of any such tests you may have carried out.

- (2) *Letter dated 15th July 1927, from the Forest Economist, Dehra Dun.*

Reference your letter No. 558, dated 30th June 1927.

If you would kindly refer to pages 172—176 in Mr. Norman White's "Report on certain Indigenous Timbers of India, Burma and the Andamans considered suitable for Railway Carriage Building," obtainable from the Secretary, Railway Board, Simla, you will find a good deal of information on timbers suitable for plywood in India.

2. I would, however, add that the lathe speed 40 to 70 H.P.M. as given by Pearson is excessive for our hardwoods and in the case of timbers with broadly interlocked fibres is liable to cause bad ruptures. We have found that from 25 to 40 H.P.M. gives better results and is not too quick to handle conveniently. High speed cutting is really not necessary as it will usually be found that the Roller Dryer, which works at a much slower rate than the lathe, will not accommodate the veneers at lathe speed.

3. Where veneers are kept in stock after being put through the Roller Dryer pending being assembled into ply form, a recurring contingency in most factories, a Re-dryer is necessary to expel the superfluous moisture picked up from atmosphere by the veneers.

4. Given proper treatment, I am of opinion that almost any timber other than the Mesua type of hardwood, or the excessively soft spongy species, will peel on a rotary lathe and make up into plywood of varied qualities.

5. I have recently given approximate figures for cost of plywood plant for the Madras Forest Department who I understand are contemplating starting the manufacture on a commercial scale. A copy can be sent you if required.

- (3) *Copy of letter No. 615, dated 25th July 1927, from the Tariff Board to the Forest Economist, Dehra Dun.*

I am directed by the Tariff Board to thank you for your letter No. 4/2820—G. C., dated the 16th instant and to say that the Board would be very glad if you would kindly send a copy of the figures mentioned in paragraph 5, which were prepared by you for the Madras Forest Department in connection with the cost of plywood plant.

- (4) *Letter No. 5/23-20-G1, dated the 10th August 1927, from the Forest Economist, Dehra Dun.*

Reference your letter No. 615, dated the 25th July 1927, Ply Wood Plant.

I have the honour to enclose a copy of a note by the officer in charge of the Wood Workshops Section of this Institute giving a rough idea of the cost of

a plywood plant. The figures cannot however be taken as exact. They refer to plant made by Messrs. Coe and Company, an American firm.

COPY OF A NOTE, DATED THE 20TH JUNE 1927, FROM THE OFFICER IN CHARGE OF THE WOOD WORKSHOPS TO THE FOREST ECONOMIST, NEW FOREST, DEHRA DUN.

Cost of three ply plant—commercial.

Reference your slip of the 14th instant regarding price of complete 3-ply box plant on commercial scale for Madras, I regret to say that figures for all the requirements are not available but such as I know of are given below:—

These prices are f.o.b. foreign, to which must be added freight, insurance, customs and other charges.

	Rs.
1. Drag saw or log cut off machine	1,300
2. Trolleys with quick lifting hoists	300
3. Lathe, 88 inch	16,400 alternative.
4. Lathe, 66 inch	Rs. 11,600.
5. Belt conveyor table 88 inch	1,920
6. Belt conveyor table 66 inch	1,600
7. Clipper 88 inch	5,200
8. Clipper 66 inch	3,500
9. Knife grinder 124 inch	5,200
10. Roller veneer dryer, 4 tiers 7 inch centres	66,400
11. Glue mixer 75 gallons	1,500
12. Double glue spreader 84 inch	4,500
13. Hydraulic Press 84" x 48"	8,700
14. Electric Press 84" x 48"	9,500
15. Retaining clamps 50 sets	1,200
16. Sander, 3 drum	15,500
17. Jointer, 50 inch	7,000
18. Taper	2,400
19. Double Cut off saw	5,400
20. Plain saw bench for converting cores into corner blocks	1,500
21. Shaping machine for converting cores into corner blocks	1,500

Added to the above prices, which are approximate only, quotations would have to be called locally for erection of the plant, steaming tanks, boilers and motors.

- (5) *Letter from the Officer-in-charge Wood Workshops to the Forest Economist, Dehra Dun Forest Research Institute, No. 189-W.W./27.*

(Handed over to the Board on the 26th August 1927.)

Reference D.O.6286, dated 8th instant, from M. Bridge, Esq., Madras, to your address.

I presume the question relates to rotary cut veneers, in which case the wastage incurred in cutting Indian timbers may come anywhere within the limits of 5 per cent. and 60 per cent. depending upon various factors

I.—Girth and length of log :—

- (a) Sound logs of a large girth give a less relative wastage than small girth logs of the same quality.
- (b) Long logs give less relative waste in trimming than short logs of equal quality.

II.—Some species have a large amount of sapwood to peel through before the knife engages the heartwood; the per cent. of waste in this direction varies considerably.

III.—Apparently sound logs, when boiled or steamed, will very often develop radial cracks and checks resulting in short widths of veneer, which as the periphery of the log decreases, become smaller in section, causing waste.

IV.—Selecting and matching veneers for high class work creates considerable waste which would ordinarily be consumed in rougher type of work, as tea chest making.

V.—The core or portion which remains after peeling a log, is a source of waste which varies according to the condition of the heart of the log.

VI.—A definite answer to the amount of waste is only possible based on the width of the lathe, average length and girth of logs used, amount of sapwood, condition of logs after boiling, purpose for which the veneer is made and possible outlet for cores.

Where selection of finely figured veneers and panels are the only consideration, the waste may, if the logs are refractory, reach 60 per cent. The minimum waste, which is almost *nil*, is obtained by catering for all classes of work into which veneers can be introduced. After selection for high class work, the residue, according to quality, is made up into the cheaper type of article until finally the cuttings and sapwood veneers are converted into the "for use once only article" as fruit baskets, etc.

The cores are used up for box corner blocks and other purposes including the making of wood-wool.

(6) Letter No. B/Camp/I of 27, dated the 28th August 1927, from the Forest Economist, Dehra Dun, to the Tariff Board, Calcutta.

I informed you that so far as I could say from memory some 16 million tons of soft woods per annum were being utilised for making paper pulp, and that the consumption was increasing by 30 per cent. every 10 to 15 years. I have now looked up the figures and find that they are approximately as follows :—

The annual demand for paper pulp making materials is approximately 15 million tons, of which about 85 per cent. is wood. This, together with the consumption of wood for other purposes, is said to be considerably greater than the amount of regrowth. The demand for paper pulp has been increasing at the rate of some 25 per cent. every year.

2. From this it seems that the cost of timber exported in any form from Europe and America is likely to increase rapidly in the not very distant future.

3. I would be obliged if you would substitute the above statement for that which I gave you in this connection from memory on the 26th instant.

4. I enclose the book "A" National Programme of Forest Research" which I promised to lend you in connection with the general question of future timber resources. The first few pages give a considerable quantity of statistics in this connection and from page 100 to page 146 other information of interest is available.

5. I would be obliged if you would return this book to me at your early convenience.

(7) Letter dated the 19th September 1927 from the Forest Economist, Dehra Dun, to the Tariff Board, Calcutta.

The attached copy of a letter received from the Loco and Carriage Superintendent, Jodhpur Railway, may be of interest to you, as you were taking evidence on the question of ornamental plywood during your recent visit to Dehra Dun.

2. The Shisham panels in question had been seasoned to stand a dry climate and were :—

- (1). One 5-ply panel, 2'-2" x 1'-10".
- (2). One core-frame panel, 2'-2" x 1'-10".

Copy of a letter No. B.W. 2/6, dated the 13th September 1927, from the Loco and Carriage Superintendent, Jodhpur Railway, to the Forest Economist, Forest Research Institute, Dehra Dun.

Your No. 3/846-3 of 7th October 1925.

I have to inform you that the two panels you sent have stood up very well to the extremely dry climate of Rajputana.

I am shortly going to build a Refreshment Car and would like to hear if you can supply panelling in Shisham or other wood for this work? The panels you sent before were rather too thick for what I want.

I have lately put in some 3-ply "box-ply" panels obtained from England—these are only 3/16" thick. Have you anything like this or at any rate not more than 1/4" thick? Could you give me panels cut to size if I let you know my requirements? Can you let me have an idea of the cost per sq. feet?

FOREST RESEARCH INSTITUTE, DEHRA DUN.

B.—ORAL.

Evidence of Mr. H. TIREMAN, Inspector General of Forests and President, Forest Research Institute, recorded at Dehra Dun on Friday, the 26th August 1927.

Introductory.

President.—Mr. Tireman, you are the Inspector General of Forests and President, Forest Research Institute.

Mr. Tireman.—Yes.

President.—I understand that you have put in a good number of years service.

Mr. Tireman.—Yes, about 33 years.

Proposed scheme for a Veneer Mill in Madras.

President.—Are you acquainted with the scheme which the Madras Government have undertaken for a veneer plant?

Mr. Tireman.—I am not. I have here a report prepared by Mr. Pearce who is a logging engineer in Madras—and an American expert—in which he has laid down a tentative programme of exploitation work for the next five years. That included two 3-ply plants and possibly also a third.

Dr. Matthai.—How long ago was this scheme prepared?

Mr. Tireman.—Within the last six months. It is still under the consideration of the Madras Government. These two or three ply plants were to be erected in three districts, viz., Tinnevely, Malabar and South Canara, the last two districts being on the West Coast. Since I left Madras in April, I understand that my successor, the Chief Conservator, in consultation with Mr. Martin (who is also an American expert), the Chief Forest Engineer, rather favours locating the first plant in the Anamalai district—which is a tea and coffee growing district—chiefly tea. There is a large area of ever green forest—some 23,000 acres—which has to be cleared and planted up with cinchona. About two years ago, we formed the idea that it was a pity to waste all the timber which was there. As it would be wasted if it were felled and burnt, we started on a small scale exploiting the forest in advance of this cinchona planting chiefly,—almost entirely—for the supply of sleepers of certain species of timber to the railway and the proposal in this report was merely to continue that work. But since I left the Presidency of Madras, my successor in consultation with Mr. Martin has, I understand, more or less decided that it would be better to put up the first 3-ply plant in the Anamalai planting district with the idea of supplying boxes to the planting community.

Mr. Wilson.—I would not say that they have decided, but that they are considering the question.

Mr. Tireman.—The programme and proposals prepared by Mr. Pearce do not propose a 3-ply plant in that particular area and the question of putting up a 3-ply plant there appears to be going to be considered.

President.—Can you tell us within what period the plant is likely to be erected?

Mr. Tireman.—So much depends on whether the Finance Department will give the money. I think that the Finance Department of the Madras Government are favourably inclined towards forest development and it is just possible that money might be provided in the next budget. But all schemes have to be in by October 1927 if money is to be made available in the year 1928-29.

Dr. Matthai.—When they considered the scheme first, was it primarily in respect of tea chests or of plywood generally?

Mr. Tireman.—It was primarily considered with the idea of exploiting the forest. The reason why tea chests were considered is that a large number of the species of timber in the ever green forests of Malabar and South Canara are timbers which are not much use for constructional work. It was considered that those timbers could be used for 3-ply.

Dr. Matthai.—Are they the sort of woods that you find in the Assam area at all? Are you familiar with that?

Mr. Tireman.—I should say more or less. But I am no botanist.

Mr. Wilson.—There are a few species that grow in both the localities and also in the Andamans.

Dr. Matthai.—Would there be a sufficient supply in that area of the same kind of wood? Take, for example, a wood like simul. Would it be possible for you in the Anamalai area to work a plant on a commercial scale using the same kind of timber or would you have to get mixed timbers?

Mr. Tireman.—We should not use only one kind. The chances of success of a 3-ply plant would depend on the question whether you can get sufficient timber suitable for 3-ply. There may be a dozen and 20 suitable species. If only one or two species are suitable, there is no possibility of a 3-ply plant being worked as a commercial concern in the ever green forests of the Madras Presidency as it would not pay to limit extraction to one or two species. But I have no reason to suppose that it will be impossible to get sufficient. Quite a number of these species are probably suitable.

President.—For tea chests?

Mr. Tireman.—Yes.

President.—You would in any case be undertaking the manufacture of 3-ply panels for ornamental purposes?

Mr. Tireman.—We have considered the question of ornamental timber in the Madras Presidency. The idea is to export ornamental timbers to Europe, not cut on the rotary but sliced. That is quite a special trade. The whole idea is the working of these forests economically. There are only a few species of timber which are suitable for ordinary building purposes, and it does not pay to extract those timbers by themselves. In order to make extraction pay, you must find a use for practically every tree in the forest and our hope is—it is only really a hope because nothing has been proved yet except what Mr. Nagel has done—our hope is that all these timbers which are not suitable and saleable as constructional or ornamental timbers will be useful and suitable for 3-ply.

President.—What would be the capacity of the plant? Have you any idea?

Mr. Tireman.—I have figures here (handed in Mr. Pearce's report). I do not know whether you have seen it, but I think not. It might be of interest of you and you can keep it if you like. I am not responsible for the figures in this report. It was prepared by an American expert. I suppose he knows all about three ply plants. To work a 3-ply plant economically he says he must have 216,000 cubic feet per annum and that he will turn out 240,000 boxes per annum.

Dr. Matthai.—Have you any kind of estimate of the supply of suitable wood in this area?

Mr. Tireman.—No, because that postulates a knowledge whether the wood is suitable or not. All I can tell you is that we assume that all common soft woods would be suitable for 3-ply.

Dr. Matthai.—I was thinking of it this way. If it is considered that you can erect a plant with a capacity of say somewhere about 2,50,000 boxes a year, I presume that implies that at any rate that amount of wood can be depended upon as an annual outturn.

Mr. Tireman.—There is much more than that. But the question is whether that quantity of wood of suitable species exists.

President.—Is that under examination now at Dehra Dun? Have they sent up any wood for testing?

Mr. Tireman.—I don't think they have. I think they are more or less assuming that all the common species are suitable.

President.—Is not that a dangerous thing? The Buxa Timber Company and the Surma Valley Company did the same and they got into trouble. They selected holoichuckie and the tea companies refused to take it on the ground of odour.

Mr. Wilson.—They are sending us species for trial. We are now getting 6 new species a year and they have already sent us one or two.

President.—I take it that they would not start until they have proved the species.

Mr. Tireman.—You can take that as absolutely certain. Mr. Martin is a careful man, and the Finance Department will also want to be satisfied on that point.

President.—One sees fairly big firms—for instance the Surma Valley—going wrong on this particular question and naturally the question is one we are interested in.

Mr. Tireman.—I am sorry it is not in my power to give you definite information. As I say no research work has been done in Madras on this subject.

Dr. Matthai.—What are the different sites that you were speaking about as suitable for the 3-ply plant?

Mr. Tireman.—The first one I mentioned is in the Tinnevelly district, viz., Mundanthorai, not far from Ambasamudram. It will be quite near the Travancore plantations. The second plant is to be located at Nilambur, Malabar district, and the third one at somewhere near Shomeswar in the South Canara district.

Dr. Matthai.—We were looking at the trade figures for tea exported from Madras. They generally export about 30 to 40 million pounds. Now that would mean not more than three or four lakhs of chests. If you had a plant with a capacity of two to three lakhs of chests, it would be just sufficient. What I mean is this. Supposing the managing agents of tea companies in South India are interested also in imported tea chests as they are in Northern India, it is likely that part of this demand for tea chests may not come to the local industry. It may still remain in the hands of importers.

Mr. Tireman.—There is that possibility.

Dr. Matthai.—I was wondering if the Madras Government did start a ply wood plant, it might be possible for them to think of general ply wood—ornamental ply wood and so on—to find a sufficient outlet for their plant.

Mr. Tireman.—Yes, but we have not as yet gone into detail of this kind.

President.—What about exporting to Ceylon?

Mr. Tireman.—If a ply plant is started in Malabar or South Canara, the question of export becomes very easy because both of them are on the sea coast.

President.—What about the rubber trade?—I understand that the rubber trade uses the same kind of box as the tea trade except that the boxes are not lined.

Mr. Tireman.—Quite a considerable quantity of rubber is produced in South India and the Madras Government would cater for this trade.

President.—You might possibly utilise your plant more for tea chests than rubber boxes. I think that about half a lakh of boxes would be required for rubber in South India.

Mr. Tireman.—Possibly. I have no information as to the quantity.

President.—And Ceylon?

Mr. Tireman.—Ceylon requires a much larger quantity.

President.—It depends on the price at which they could be turned out. Presumably you could turn out your chests at a low price. If you do, there is the possibility of the rubber industry finding it worth their while to take your chests.

Mr. Tireman.—Mr. Pearce has gone into the question. I do not know to what extent he is to be relied on but he estimates that tea boxes including metal strips will cost Rs. 2-8-0 on rail.

President.—Including lining?

Mr. Tireman.—Yes.

President.—Does that include overheads?

Mr. Tireman.—Yes.

Dr. Matthai.—Rs. 2-8-0 per chest?

Mr. Tireman.—Yes (see paragraph 223). Lead foil and metal strips will cost about Rs. 1-3-0 per box, the total cost being Rs. 2-7-8 at the mill or Rs. 2-8-0 on rail.

Dr. Matthai.—That probably is the works cost.

President.—Does that allow for the overhead?

Mr. Tireman.—Yes, it does. Quite a large overhead for establishment is allowed for.

President.—What I mean by overhead is interest on working capital and depreciation.

Mr. Tireman.—You will find everything there.

Dr. Matthai.—What is the total capitalisation?

Mr. Tireman.—The capital cost of the veneer plant is Rs. 2½ lakhs—that is machinery delivered and erected and buildings.

Dr. Matthai.—That is much lower than any estimate we have had.

Mr. Tireman.—I do not know to what extent this is to be relied on. But if you take this report you will see that it goes into the matter in detail.

President.—I should like to have a copy.

Mr. Tireman.—Yes. Mr. Pearce goes on to say that the average tea box costs Rs. 4-8-0 in the Anamalais. He is assuming that with organisation we can capture the whole trade. He calculates the price in Calicut at present at Rs. 4.

President.—At present the Calcutta price is Rs. 3. There has been great competition.

Dr. Matthai.—What is the date of this report?

Mr. Tireman.—July 1926.

Dr. Matthai.—I suppose the price was Rs. 3-8-0 then.

World shortage of soft woods.

Mr. Tireman.—All authorities are agreed that the supplies of soft wood are running short in the world as a whole and there will be a famine.

President.—Could you give us any definite information?

Mr. Tireman.—I am sorry I cannot.

President.—We understand that at present in Finland the supply of ply wood is very large but that unless plantation is undertaken it is doubtful how long it will last. I imagine that with the prospect of famine in soft wood plantation will have to be undertaken in those countries.

Mr. Tireman.—I should think so. Planting is being undertaken on a very large scale in New Zealand with the idea of making the island self-contained.

President.—If plantation is undertaken, the famine in soft wood might be postponed indefinitely.

Mr. Tireman.—Yes, but it is a very large and expensive business to undertake plantations. Of course in 40 or 50 years if people plant on a large

scale the thing will be all right. But from the various estimates I have seen the real famine will take place in about 20 to 25 years from now.

Mr. Seaman.—The general feeling is that even if they understood re-afforestation there would probably be one generation of famine before the plantations undertaken now began to give relief.

Dr. Matthai.—That is in relation to what area?

Mr. Tireman.—I am speaking of soft wood.

Dr. Matthai.—Are you speaking of the world supply?

Mr. Tireman.—Yes.

President.—Could you give us a reference? Is there anything published on this subject?

Mr. Seaman.—It was an article which I read in a London magazine and it struck me at the time. But I have no reference.

Mr. Wilson.—This matter has been referred to in a book which I was reading the other day. It is a booklet in which it is recommended that research should be undertaken throughout the world and in that they refer to the likelihood of shortage in soft woods. I have got a copy of that book and will lend it to you.

President.—Would you mind lending it to us fairly soon?

Mr. Tireman.—I should suggest that I supply you now with just a resume of the conclusions come to at the last Imperial Conference: there was a forest section and they went into the question of supply of soft wood. I have not got a copy of the proceedings but I have got the conclusions they arrived at. That followed on the World Forestry Conference at Rome and the Imperial Forest Conference of 1923 and all these conferences came to the conclusion that the world shortage in soft wood was not very far off.

Mr. Trotter.—My information is that there was no agreement among experts; some said there could not be a shortage in 40 years, while others said it might come in ten years.

President.—But still there is a prospect that there will be a shortage?

Mr. Tireman.—Yes.

Mr. Wilson.—The most authoritative view that has yet been given was that given by a committee set up by the Imperial Conference last year in England.

Mr. Tireman.—That is the one to which I was just referring. There was a special section referring to Forestry.

Mr. Wilson.—The conclusions they came to, I think, were to the effect that within 15 to 20 years' time there was undoubtedly going to be a serious timber famine which needed immediate attention from everybody interested in or responsible for the supply of timber.

President.—Mr. Tireman, I wonder if you could give us a short memorandum on the subject?

Mr. Tireman.—I can simply give you a copy of the conclusions they came to. It is not a subject with which I am familiar but I will look for any other papers I have on the subject and let you have them.

President.—If you could give us materials on which we could form conclusions on the subject it would be useful. In your view would you consider that the preservation of the tea chest industry in India is a reasonable form of insurance which the tea industry ought to take against the possibility of a shortage of wood in the near future?

Mr. Tireman.—I have not thought enough about it to enable me to give you a definite reply.

President.—If the tea chest industry now was enabled to maintain its position out here, in the course of the next 10 or 15 years it is possible from the information you give us that there might be a shortage of wood in Europe and America resulting in a considerable rise in price of tea chests,

so that one might say possibly from that point of view a small charge on the tea industry now might be worth while.

Mr. Tireman.—I think there is no doubt about that.

President.—I mean merely as a form of insurance against any possible rise in future due to world shortage.

Dr. Matthai.—I remember there was a suggestion during the paper enquiry that the sort of wood suitable for paper was also likely to run short. Is that correct?

Mr. Tireman.—Yes, I think it was suggested that there was going to be a shortage of wood pulp and the attention of the pulp manufacturer was being turned now to bamboo which I think has proved its suitability entirely.

Mr. Wilson.—Mr. Raitt has been lecturing before the British Association of paper makers on the subject during the last two or three months in England and the generally accepted view of the paper journals is that he is correct. They use I think 16 million tons of soft wood every year for manufacturing paper pulp and I think I am right in saying from memory that the increase is something like 30 per cent. over a decade and that the amount of regeneration is not nearly as large as the amount of extraction. So that in the paper pulp industry if the paper pulp is continued to be made from the coniferous wood and at the same time the rate of consumption increases as it has increased in the past few years, that industry alone would use up all the available timber in the Continent and America.

Dr. Matthai.—Am I right in thinking that coniferous and soft woods are more or less the same thing?

Mr. Tireman.—They are usually considered to be the same thing at present, but I rather think that some of our soft woods which are not coniferous will be accepted as soft wood in the future.

Mr. Trotter.—As far as soft woods used in paper are concerned they are commonly coniferous.

Mr. Tireman.—May I make one remark in connection with a suggestion you made earlier. You said possibly if this factory was to turn out 250,000 boxes a year, they might not be able to sell them all and you base that suggestion on the present outturn of tea in South India. I may say that the area under tea is increasing every year. One firm, Messrs. Brooke Bond and Company, have recently applied for 8,000 acres in the Nilgiris; another firm I know of have applied and will I am sure be given 11,000 acres in the Madura district, and you have probably seen the correspondence about Travancore which will allow of extension of Brooke Bond's acreage to many thousands more, so that I think you have got to assume that the output of tea is going to increase very considerably during the next few years.

Dr. Matthai.—We had a strong protest from the Calicut Chamber of Commerce against the proposed duty. Probably they think that a tea chest industry in a distant place like Assam is of little use to them, but if the Madras Government did start a factory that would make a difference to the whole situation?

Mr. Tireman.—That is quite possible. I do not know whether you would like to have a few figures as regards the quantity of timber which may probably be available.

President.—I think it might be useful.

Mr. Tireman.—I am assuming that all the commoner woods which are not suitable for construction purposes are suitable for ply. All these figures are very rough guesses. There has been very little examination of the subject so far—nothing beyond a survey of a few thousand acres. The work takes a long time. It is going on in Madras now as fast as it can. I know these forests very well; I spent most of my service in them. There are roughly 3½ lakhs of acres or 550 square miles of evergreen forests in the Madras Presidency. The present stock on a very low estimate is 500 cubic feet per acre. The total stock standing in these forests is therefore 177½ millions of cubic feet. If you assume a rotation of 70 years, that is to say,

that the whole will be cut down in 70 years—and 70 years is a very conservative estimate for such fast growing timbers—the annual outturn will be 2½ million cubic feet or 50,000 tons. In future when these forests are properly worked they will yield at the very least 25 cubic feet per acre per annum. That is a very low figure for fast growing forests because already in Europe and other countries forests are yielding 100 cubic feet per acre; in New Zealand they are yielding I believe 300 cubic feet per acre so that in a tropical country with heavy rainfall and everything in favour of rapid growth 25 cubic feet is a very low figure. Assuming this figure there will be available something in the neighbourhood of 9 million cubic feet per annum. There can, therefore, be no possible doubt that there is plenty of timber available in the Madras Presidency alone for a 3-ply plant assuming that the timber is suitable. I have not taken into consideration in these figures the timber suitable for sleepers and constructional work. Then again the Andamans are going to be a source of supply of enormous quantities of timber given properly organised exploitation.

President.—Is there any other point that you want to put before us?

Mr. Tireman.—I don't think there is anything else. I cannot claim to have studied this question but I thought these rough figures might interest you.

**Evidence of Messrs. C. C. WILSON, H. TROTTER, L. N. SEAMAN,
W. NAGLE, and F. D. ARDAGH, recorded at Dehra Dun
on Friday, the 26th August 1927.**

Introductory.

President.—Mr. Wilson, you are the Forest Economist of the Forest Research Institute?

Mr. Wilson.—Yes.

President.—Have you any personal knowledge of the two factories in Assam?

Mr. Wilson.—No, I have not.

President.—Do you know the forests there?

Mr. Wilson.—No.

President.—Are you in a position to give us a general idea of the wood supply there?

Mr. Wilson.—I am in touch with the firm in Calcutta who works the Assam Saws Mills and used to work the Surma Valley plant and I have been in correspondence with them about the ply wood position matter for the last few months and I have also got from the Conservator of Forests, Assam, a statement about the timber available and I can give you that if it is of any use to you.

President.—Yes, it would be useful, because we have had no definite estimate from him when he gave evidence.

Mr. Wilson.—The gist of his letter was that the estimate of supplies that Messrs. Bird & Co., made was approximately correct. Mr. Jacob states in a confidential letter that “as far as hollock and simul are concerned I consider the supplies will be ample for the companies' requirements although I do not agree with their estimate of 20 years for the growth of simul.”

Dr. Matthai.—What is your own idea?

Mr. Wilson.—I am not in a position to speak of the rate of growth in Assam.

Dr. Matthai.—Do you mean that the rate of growth differs in different areas?

Mr. Wilson.—Yes. Mr. Jacob goes on to say that although they are more or less correct in their estimate of quantities, both species will take a longer time to grow. For simul he says “I estimate 30 to 35 years.”

Indian Timbers.

President.—Can you tell us the number of different kinds of wood in India?

Mr. Wilson.—The standard work on Indian timbers is by Mr. Gamble and in his book he includes 5,000 botanical species. They are not all real timber species a great many are shrubs and climbers.

President.—Could you give us any sort of estimate?

Mr. Trotter.—The total number might be taken as 2,500 woody species. Of these probably about 500 are available for commercial use.

Mr. Wilson.—It is difficult to give exact figures. Approximately 500 will be a fair estimate.

Dr. Matthai.—That is including all sorts, hard and soft.

Mr. Wilson.—Yes.

President.—Practically any kind of timber will veneer?

Mr. Wilson.—I would not like to say that. Very hard timbers such as the iron woods would not veneer properly and certain other species which are not hard, tear when going through the rotary veneer machine.

President.—Oak is commonly veneered by the rotary lathe in America. Do you think that is correct?

Mr. Nagle.—I can answer in the affirmative.

President.—So that hardness in itself is not a disqualification for veneering.

Mr. Nagle.—Excessive hardness is.

President.—Would it be correct to say that the majority of timbers can be veneered?

Mr. Nagle.—Yes, provided they are properly handled.

President.—Of these 500 timbers which are useful for commercial purposes, a considerable number can be veneered.

Mr. Nagle.—Most timbers which can be worked successfully on wood working machinery can be converted into veneers of various qualities. There are of course difficulties in the way, such as interlocked fibres which are liable to rupture during the peeling process.

Mr. Wilson.—I think it would be correct to say that the majority could be cut on a veneer machine, but of these quite a number would not be suitable for cutting owing to the fact that they are too hard or that the fibres tear apart or for some other technical reason.

President.—But a considerable number which could not be veneered by the rotary process could be veneered by slicing.

Mr. Wilson.—Yes, but they would not be suitable for tea boxes.

President.—I was just coming to that. Do you consider that there is a future for the use of ornamental ply wood?

Mr. Wilson.—A very great future.

President.—On account of these varieties in India, India should be in a particularly advantageous position to supply the market for ornamental timbers, that is to say a number of timbers of considerable ornamental value which are found in India are not found in other parts of the world.

Mr. Wilson.—That is certainly so.

Dr. Matthai.—What is your point, there is a big scope for ornamental ply wood from the point of view of availability of material or of sufficiency of market?

Mr. Wilson.—The point is this. There are a great many timbers suitable for ornamental ply wood which, if it were possible to get them to the factory at an economic rate and then to get them from the factory to the markets outside India also at an economic rate, would have a great future; but it is difficult to say without a proper survey being made that these timbers grow in sufficient quantities and sufficiently close together to make extraction from the forest to the mill economical. Again it is difficult to say definitely now that it would be a commercial proposition to transport certain ornamental ply woods from the factory to the world markets.

President.—Those are matters which the institute would go into.

Mr. Wilson.—Yes, certainly. Those are the matters which we propose taking up in our veneer project.

President.—For instance the question of the accessibility of the supply of timber and the question of transport to suitable markets.

Mr. Wilson.—We would not touch very much on the question of transport. That would be more a question for commercial enquiry by the firms interested. If they can find the markets, we can say what timbers would be suitable and in what quantities they would be available.

• *President.*—Would that not mean enumeration of particular trees?

Mr. Wilson.—Yes, a very extensive enumeration which could be made by the Forest Departments of the provinces concerned.

President.—Would there be any unanimity among the provinces in regard to taking up this enumeration?

Mr. Wilson.—Possibly not.

President.—It would be rather a difficult matter to get them to take it up.

Mr. Wilson.—Yes. But at the moment estimates are being made of the availability of certain types of timber to be laid before the Empire Forestry Conference in Australia next year. These are being made in all the provinces under the orders of the Government of India by the Governments concerned.

President.—As regards this question of research into the suitability of timbers, that will, I understand, be entirely done by the Institute. As to the question of the supply of timber, would the Institute undertake that or should the Government of India be moved to address the local Governments on the subject?

Mr. Wilson.—The Institute could not undertake that.

President.—That is the local Governments would have to be moved in a matter of that sort.

Mr. Wilson.—Yes. I would like to refer again to the question of the number of species available. We have said that there were some 2,500 woody species in India and that of these, 500 were available for use as timber, but it seems you have got the impression from what we have said that the whole of this 500 were suitable for commercial use.

President.—Yes.

Mr. Wilson.—That is not so necessarily; many of them grow so widely scattered, and in some instances in inaccessible places, that they may possibly never be useful from the commercial point of view. I don't want to give you the impression that 500 timbers can be made available either immediately or even in the immediate future. They may be, but I cannot say they will be.

Ornamental ply wood and ply wood for panelling and furniture, etc.

President.—You have undertaken a certain amount of ornamental ply wood work in the Institute.

Mr. Wilson.—Yes.

President.—Could you tell us the chief buildings for which you made these 3-ply panels?

Mr. Nagle.—Legislative Buildings, New Delhi:—(1) East entrance sector Writing room—Sissoo, (2) Reading room—Koko, (3) Committee room—Padauk, (4) Committee room—Teak, (5) Room No. 14—Padauk, (6) Room No. 4—Rosewood, (7) President's room Assembly sector—Sissoo, (8) Council of State Chamber—Rosewood.

President.—As regards the existing Companies do you think that any of them from what you know of the timber in the vicinity could undertake the manufacture of ornamental panels? At present I may say the Assam Railways and Trading Company alone turn out panels for use in bungalows and for the panelling of railway carriages.

Mr. Wilson.—The only one I can speak of from my personal knowledge is the Company in Rajabhatkhawa in the Buxa Division in Bengal.

President.—That is the old Buxa Timber Company.

Mr. Wilson.—Yes. I think it has recently been acquired by a syndicate of Indian tea planters. There they have got a plant and timbers suitable for ornamental veneer of the best and the highest quality.

President.—What are the special kinds of timber?

Mr. Wilson.—I am not in a position to say exactly.

Dr. Matthai.—They have sent us a letter about tea chests in which they said apart from Simul there were three other kinds of timber which they were thinking of using and the names they give are—(1) Champ, (2) Toon, and (3) Lalli. Would they be suitable for ornamental purposes?

Mr. Wilson.—I am under the impression that the first two would do well.

Dr. Matthai.—What about the third, Lalli?

Mr. Wilson.—I don't know it.

Mr. Trotter.—It might interest you to know that we have also sent sets of ply wood panels to railways for panelling railway saloons.

Dr. Matthai.—To which of the railways have you sent?

Mr. Nagle.—Panels were made of sissoo for the old Oudh and Rohilkund Railway (now the East Indian Railway).

President.—Do you consider that the market for ornamental ply wood and ply wood for panelling can be extended in India? Is there scope for the expansion of the market in India?

Mr. Wilson.—Yes, I consider that there is.

President.—In what direction—panelling railway carriages?

Mr. Wilson.—Panelling railway carriages and panelling in buildings of the more expensive kind.

President.—Have you any reports from the railways to whom you supplied the panelling? Are they satisfied with the quality?

Mr. Wilson.—I think they are. The panels have not, however, yet been in use for a sufficient length of time to give a considered opinion.

President.—You have not had any repeat orders.

Mr. Wilson.—No.

President.—You have sent it only for experimental purposes.

Mr. Wilson.—Yes.

Dr. Matthai.—Could you tell us apart from panelling whether there is any other part of a railway carriage for which ply wood would be useful, say roof boards, etc.?

Mr. Wilson.—I am not in a position to say.

Dr. Matthai.—In one of your letters to us you referred to Norman White's report. He makes an analysis of the different parts of the wood work of a railway carriage and he comes to the conclusion that 2½ per cent. of the total wood work in a railway carriage is panelling.

Mr. Wilson.—That is approximately correct.

Dr. Matthai.—It may not amount to very much of a demand.

Mr. Wilson.—True. This particular item will not constitute a very big demand.

President.—What about furniture? There is a big demand in India, say, for almirahs. Every house has a certain number of almirahs. Is 3-ply wood suitable for that?

Mr. Wilson.—To put in good ornamental veneered panels would probably be expensive.

President.—Would a ply wood almirah be too expensive?

Mr. Nagle.—Common ply wood would not. These are the uses to which 3-ply wood might be put:—aeroplane construction, lining for rooms and ceilings, interior panelling of picture palaces, theatres, board rooms, hotels, motor construction, lining sub-marines, lining caterpillar tanks, paste boards, wardrobes, almirahs, dressing tables, washstands, trouser presses and you can go on *ad lib.*

President.—In this country, would there be a considerable demand for those articles?

Mr. Nagle.—A demand may develop for certain of the items, I infer that ply wood is being introduced in some part or other in the different articles I mentioned just now.

President.—Take one of the articles used in this country rather more than any other, *viz.*, almirahs. Would an almirah made of ply wood be more expensive than an ordinary wooden almirah?

Mr. Nagle.—It would not be much more expensive than the frame cloth covered almirah.

Mr. Wilson.—If ply plants are erected on a commercial scale and begin to produce boards in sufficient quantities, there is no doubt that a ply wood panel almirah would be cheaper; but at present the supply is so small that it would probably be more expensive to make an almirah out of ply boards.

President.—What advantage would they have? They would be less susceptible to atmospheric changes.

Mr. Nagle.—Exactly.

President.—Would they be lighter?

Mr. Nagle.—Very much.

President.—You get the same strength and less weight.

Mr. Nagle.—Very much more strength with less weight.

President.—If the existing firms were to turn their attention to the manufacture of ply boards for furniture and reduce their prices by a large output, do you think that the market is capable of expansion?

Mr. Nagle.—My opinion is this. You should take into account all branches of the ply wood industry, and by so doing you would be reducing your wastage. For example, when you peel for ornamental veneers, you get a great amount of wastage because you have to select your panels. That waste can, I think, go into the making of some other commodity.

Dr. Matthai.—May I put it this way? If you go in for ornamental ply wood, it does require highly skilled labour.

Mr. Nagle.—It certainly does.

Dr. Matthai.—So far as these two or three mills which are now in existence are concerned, it may be rather difficult for them for some years to come to get the sort of labour required for this work.

Mr. Nagle.—That is a difficulty but in my opinion it can be quickly overcome.

Mr. Wilson.—We are not prepared to advise commercial firms to take up the manufacture of ply wood for furniture under present conditions. We are not in a position to advise them to do so. The demand may not arise. People may not like it. In India timber users are very conservative.

President.—If commercial firms undertaking the manufacture of ply wood were to manufacture other kinds besides the ply wood required for chests, they would be able to reduce their costs of tea chests by being able to use scrap wood. They would get better prices for their ply wood for furniture than they get for their ply wood for tea chests now. If they used their best wood for furniture and the inferior wood for tea chests, would it not be possible for them to produce tea chests at a lower rate making up the difference by their sale of ornamental ply wood?

Mr. Wilson.—It would be possible but we cannot say definitely.

President.—Would it be worth while exploring the market?

Mr. Trotter.—I can give you an example. A small merchant in Dehra Dun saw us using ply wood in the making of furniture. He now regularly buys ply wood and uses it for these purposes. He tells me that he finds it better and cheaper than using solid wood.

President.—Unless a commercial firm takes its courage in both hands and advertises considerably and pushes its sale of ply board, the market is going to be developed only very slowly.

Mr. Nagle.—That is perfectly true.

President.—On the other hand if you were to get one of the big manufacturing firms in Calcutta to do this, you might quickly expand your market.

Mr. Wilson.—That is correct. Under those circumstances, what you asked previously would be answered in the affirmative. It should be possible to develop existing plant for the production of ply wood for a variety of purposes.

President.—I am not suggesting that they should abandon the manufacture of tea chests, but what I am suggesting is that it might prove desirable for them to start the manufacture of ply wood for other purposes on a small scale and later on as their advertising is successful and as their examination of the market proves that there is a market for this kind of ply wood, they might extend it. Do you think that that would be sound?

Mr. Wilson.—Yes.

Ply wood for Tea chests.

Dr. Matthai.—I do not know whether you are in a position to tell us about this. If you take a country like the United Kingdom, is one justified in thinking that as far as the ply wood industry is concerned their main market is general ply board and the manufacture of tea chests is practically in the shape of a by-product, that is to say you take your best veneers for ornamental ply wood and so on and then the less satisfactory ones you use in the making of tea chests.

Mr. Wilson.—I don't think that that is the case. I think the ply wood box people go in primarily for tea chests and such purposes. At the same time I think it is probable that people who make ornamental ply wood use their inferior material for general purposes.

President.—Let us take a step further. Most of the manufacturers of tea chests in England import their plies from Finland. Now if the Finnish manufacturers whose plies are exported to the English market for making tea chests, turn out a certain amount of ply wood suitable for ornamental purposes, would not they, by getting a better price for their ornamental ply wood, be able to place their ordinary ply wood on the market for tea chests at a cheaper rate?

Mr. Nagle.—They would. But the question is, have they got anything in the nature of a really ornamental ply wood.

Dr. Matthai.—I want to ask you about a point somewhat allied to this. At present in the Indian market the tea industry wants chests of 7 or 8 different sizes. I was wondering whether it would not be possible for the tea chest industry in India to reduce its costs if the chests were standardised in size.

Mr. Nagle.—No, it would, I think, be the reverse of that.

Dr. Matthai.—Could you explain that?

Mr. Nagle.—Out of small cuttings which you get while cutting the panels for bigger chests, you can make the smaller chests.

Dr. Matthai.—That point was raised. The difficulty I felt was this. Take a chest which measures 19"×19"×24". Supposing you were making chests—all 19"×19"×24"—the refuse you get out of that would not be sufficient for making the smallest chest of 16"×16"×16".

Mr. Nagle.—It depends on the log. Very often you get a log which will give you a low percentage of decent panels for 19"×19"×24" and leave you 60 per cent. of the timber from which you can make the small chests of the size you mention.

Dr. Matthai.—So that it is really more economical to have different sizes.

Mr. Nagle.—Yes, I believe so.

President.—Could you tell us the price of birch wood in England?

Mr. Wilson.—No. As regards this question of ornamental ply wood, I have heard discussed by the Madras Forest engineers the question of their ply wood plant and I have seen various notes and demi-official letters that they have written about it. I gather that their intention is to make ornamental ply wood as well as ply for tea chests; and if Government decide to put up such an experimental plant, it will help to show whether such a scheme is financially sound.

Dr. Matthai.—In an experimental factory of the kind that you are running here, may I take it that the data you get may be accepted as guidance

in regard to methods, materials suitable and so on but not in respect of costs? Am I right?

Mr. Wilson.—You are quite right. We would, however, probably be able to give figures for adhesives.

Research as to the suitability of Timbers, etc.

President.—Turning again to the question of research into the veneer industry and the points which you contemplate making research into: first of all there is the question of the suitability of timbers.

Mr. Wilson.—Yes.

President.—Then, there is the question of quantity, which would have to be looked into through the local Governments.

Mr. Wilson.—Yes.

President.—Then apart from that?

Mr. Wilson.—The suitability of combining a variety of different timbers to make chests having the same tare, etc., as chests made of a single timber.

President.—That is to say, density and weight.

Mr. Wilson.—Yes. Also the cutting qualities of timbers, the adhesive quality of the timbers, and the strength of ply wood made of those timbers. Further we would investigate the question of the adhesives best suited to various timbers, and their cost.

President.—That is glue.

Mr. Wilson.—Yes. We have got here some rough notes on the proposed veneer project. You can see from them clearly what we want to investigate.

President.—Could you have a copy made for us?

Mr. Wilson.—Yes.

President.—The veneering industry in India is comparatively a new industry.

Mr. Wilson.—Yes.

President.—For instance, a book on veneering in America might not be a perfect guide to veneering in India?

Mr. Wilson.—No.

Dr. Matthai.—It might be misleading.

Mr. Wilson.—Yes.

President.—So that it will be necessary to employ people who have had practical experience to take up this research work.

Mr. Wilson.—That is most necessary.

President.—Preferably experience in several countries.

Mr. Wilson.—Yes, and with actual manufacturing experience of their own as a guide.

President.—Will you require any increase of staff for research into questions connected with ply wood?

Mr. Wilson.—If this veneer project is really to be of value to the ply wood industry we would certainly need increase of staff as soon as we can obtain it; the matter has been put before the higher authorities already asking for the necessary increase in staff.

President.—What about plant? It seemed to me that perhaps your plant is not as complete as might be.

Mr. Nagle.—We need a hydraulic press.

President.—For instance, you have no roller drier.

Mr. Nagle.—No.

President.—Would that be necessary?

Mr. Nagle.—Yes, for commercial work, but it would be very expensive for research work. For that reason we did not get one as we can obtain our data

by other means. Further it would entail the necessity of a new building to put it in.

President.—Must you have a roller drier?

Mr. Nagle.—We can do without it as we experiment on small quantities of veneers only.

President.—You would not require a roller drier even on a small scale.

Mr. Nagle.—No.

Mr. Wilson.—We don't propose to ask for any great increase in plant.

Dr. Matthai.—Could you tell us approximately what would be the additional capital cost?

Mr. Wilson.—I can not say off-hand. It would not be anything very serious.

President.—What about your power plant? At present you get your power from the Mussoorie Electric Works.

Mr. Wilson.—Yes. They are putting up a new electric station for the purpose of supplying us with more power.

President.—So that there will be no difficulty.

Mr. Wilson.—We hope not, but I am informed that it is not certain that the new power they are putting up can be made available for the present plant.

Mr. Seaman.—If we want to run the veneer plant absolutely successfully we need another motor. The total output of our converters is 50 kilowatts, two machines of 25 K. W. each. The veneer plant requires more than 22 kilowatts at the motor. If veneers run off one machine, and the testing laboratory off the other that makes practically no allowance for line drop or for temporary over-load. The testing shop at the present time is using 16 kilowatts.

Mr. Wilson.—When the new power house is ready, with certain alterations we can get the necessary power.

President.—You would have to have an independent motor for the veneer plant.

Mr. Seaman.—Yes. The two (*viz.*, the veneer plant and the Timber Testing laboratory) were run off one source as a temporary measure, but at that time it was definitely the intention that when the testing laboratory was completed, the veneer plant would be run independently. Now the testing laboratory is nearly complete—not quite—and consequently the power for the veneer plant is getting very very scarce.

President.—When the new power house is put in the idea would be that your electricity would come down direct to your veneer plant.

Mr. Seaman.—Yes, without having to pass through the testing laboratory. The testing laboratory would then use all its present supply and the veneer plant would have to have a separate motor running on a separate supply. The Mussoorie Electric Works people say that they can supply the whole thing easily.

Mr. Wilson.—The new power station is not to be at Mussoorie but is to be installed at the new Forest, near our workshops by the Mussoorie Electric Supply Company.

President.—The new motor that you speak of, will that have to be supplied by Government?

Mr. Wilson.—Yes.

President.—You are addressing Government on that point, are you?

Mr. Wilson.—We will.

Cost of plant.

President.—We gave you Messrs. Bird & Co.'s estimate of the replacement value of their plant. Could you give us your general opinion as to whether it is approximately reasonable?

Mr. Wilson.—We can give you the prices in America but we cannot give you an estimate of the freight, erection charges and so on.

President.—From your experience of machinery you would probably be able to tell us whether a block account which in about 1918 or 1919 stood at about Rs. 19 lakhs, if that is written down to approximately Rs. 10 lakhs, would that be reasonable? That is to say the present replacement value would be about half of what the cost had been in 1919.

Mr. Wilson.—I cannot say how much it would amount to.

Mr. Seaman.—It must be nearly three-fourths. It is very difficult to say.

Dr. Matthai.—Could you express any opinion on this point? All this machinery was bought by the Assam Saw Mills in America: what they have done apparently is to take the proportion in which prices in America have fallen in 1927 as compared with 1918. If I were to start a new plant to-day I might go to some other place than America and get the machinery at a price cheaper than that ruling in America to-day. If we take for example the present British or Continental prices do you think you would be able to get your plant cheaper in the Continent or in England than if you were to buy in America?

Mr. Wilson.—I am really not in a position to answer that question.

Mr. Seaman.—I don't think it makes any difference whether you buy from England or America. You will not go far wrong in estimating the quality of the machinery by the price.

Glues.

President.—I understand you have undertaken a considerable number of tests on glues and casein. You have conducted tests, for instance, in the case of opium chests made by the Venesta and Acme Companies and also certain samples supplied by Messrs. Bird & Co. What do you find?

Mr. Wilson.—We found that samples supplied by Venesta were superior to those supplied by the Indian company. On the other hand plies which were made here in the Forest Research Institute were, if anything, superior to Venesta plies.

President.—Did you have any failures with Venestas under test?

Mr. Wilson.—After a prolonged period of test any ply will break down but we would not call that failure.

President.—Have you had any Venesta or other samples of chests which definitely failed in use sent to you for examination?

Mr. Wilson.—We have recently had ply wood, which I believe to be imported sent to us by the Benares Opium Company which they considered unsatisfactory owing to the fact that it had split and checked in various places.

President.—What was the reason?

Mr. Wilson.—It was probably due to incomplete drying of the veneers before the ply was made up. During Mr. Nagle's absence the officer acting for him gave us a report to the effect that it was probably not perfectly dried before the ply was made up from the veneer.

President.—What was the result of your experiment on Indian ply wood?

Mr. Wilson.—That the material supplied by the Indian firm was inferior to the Venesta.

President.—When was this test carried out?

Mr. Wilson.—3rd October 1926.

President.—One can draw conclusions from the tests that ply wood made in India, if proper care and attention is used, is just as capable of standing—rather more capable of standing—tests than Venesta, because your own ply wood has proved superior in these tests.

Mr. Wilson.—In this test it did.

Dr. Matthai.—We had a letter from the Opium Agent in Benares in which he told us that Indian chests were sent to Dehra Dun for testing and they did not tell us that it was a confidential letter.

Mr. Trotter.—They wrote to us asking us whether they could give you certain confidential information about these tests. Our reply was that he was not to give the information but that we would give you a resume of the results of our tests.

Dr. Matthai.—These defects that you have noticed, do they relate to the veneering or gluing?

Mr. Wilson.—I believe it is entirely the gluing, but as I was explaining just now some woods tear when they are cut. If they tear to any extent air pockets are formed which have a weakening effect on the veneer, so that it may also possibly be due to the timber being not so suitable as that used by Venesta, but in the main it is due to the glue.

President.—Do you manufacture glue?

Mr. Wilson.—We purchase it in powder form and make up the glue here according to the makers' formula.

President.—So that actually you are using the same glue as the Assam Saw Mills are using. They were obtaining theirs from Messrs. Smith Stanistreet & Co.

Mr. Wilson.—I understood their casein cement was made from a formula supplied by Messrs. Bird & Co.'s own chemist.

President.—Supposing a buyer asked Messrs. Smith Stanistreet & Co. to make their cement according to the same formula as you use, would there be any objection?

Mr. Wilson.—None whatever.

President.—As regards these tests, the fact that a chest failed in your test which is very severe, is no reason that it is not suitable for the purpose for which it is made?

Mr. Wilson.—No.

President.—From the point of view of the user of the chest it is up to him to make experiments, obtain samples, test them and prove whether they are suitable for his purpose. He might well adopt a particular kind of chest proved suitable for his purpose even though possibly it cannot stand the test in this Institute. Is that correct?

Mr. Wilson.—Certainly.

Dr. Matthai.—I suppose an opium chest must stand a severer test than a tea chest?

Mr. Wilson.—I cannot say.

Mr. Wilson.—I have also got the results of experiments in the timber testing shops by Mr. Seaman on these same samples.

Dr. Matthai.—What was the result of that?

Mr. Wilson.—I will give you a summary of the hot and cold water tests and of the strength tests. All specimens of the Venesta ply stood up well to both tests, being excelled in the hot water test by our own ply wood. Both these products should stand up well to the climate of India. A summary of the tests is given herewith.*

President.—Have you got the name of the Company who sent the ply wood for these tests?

Mr. Wilson.—I got it confidentially from the Benares Opium Company.

Dr. Matthai.—What really is the difference between glue and cement?

Mr. Trotter.—Gelatinous or "sticky" types of adhesives are usually referred to as glues whereas adhesives made up from powder bases are generally known as cements. Gelatinous adhesives can be softened again, after

*See Appendix.

they have set, by the application of hot or cold water. Cements, on the other hand are, as a rule, not re-soluble.

Mr. Wilson.—Subsequent to these tests which we made, I went to see the firm in Calcutta who was making this ply wood. They were disturbed about the matter and undertook immediately to make further tests and experiments to improve their glue. I have now received a letter from them to say that they have made detailed tests of a new glue that they have evolved and find it extremely satisfactory. I understand that they have given you figures for the results they got.

President.—This inferiority of the cement or glue used, do you think that a commercial firm could have avoided this defect if they had adopted periodical tests with a testing machine and also the hot and cold water tests?

Mr. Wilson.—I think there is no doubt it could be avoided if there was no question of necessary economy. But I cannot say that they could have avoided it and at the same time kept their costs down to any necessary low limit.

President.—At the same time if they adopted a definite system of testing their products, at various intervals it would be possible for them to obtain uniformity of standard.

Mr. Wilson.—Yes, they would be in a position to know exactly what was happening and to produce a uniform product as you say.

President.—They could guarantee that their product would stand so many lbs. pressure.

Mr. Wilson.—If they were to conduct their tests on satisfactory lines they could guarantee to produce ply wood up to a certain standard strength.

President.—And a continuous system of testing of this sort would enable them, I suppose, to determine the minimum amount of glue which would give satisfactory results. To that extent it might assist them, might it not?

Mr. Wilson.—It certainly might. On the other hand they could get tests made by this Research Institute whenever they wished if they didn't want to go to the expense and trouble of installing their own testing plant. A firm is hardly in a position to have scientific tests made of all its materials without special and possibly rather difficult and expensive arrangements.

President.—Do the Assam Saw Mills and other firms utilise your services to any extent? Do you have any other firms sending samples?

Mr. Wilson.—We have had samples sent to us by another firm.

President.—Have the Assam Railways and Trading Company sent any samples?

Mr. Wilson.—Not since I have been here.

Dr. Matthai.—Apart from the question of their making suitable arrangements for testing in their works themselves, don't you think where there is severe competition between the imported product and the Indian product that it is of great importance to have an independent testing arrangement? What I mean is this. Supposing they are able to get a guarantee of quality from an independent testing authority like the Research Institute here, it would carry a value which even the best test performed in the works itself would not, is not that so?

Mr. Wilson.—Undoubtedly that is so.

President.—The point I was aiming at really is this. In a new industry like this there are constantly a number of experiments going on—experiments as to the costs, glue and so on. For that purpose if they kept a record of testing conducted by themselves, it might be possible for them to cheapen or improve their process.

Mr. Wilson.—Certainly.

President.—And to that extent, testing would be satisfactory.

Mr. Wilson.—Yes.

President.—Supposing they don't adopt the boiling or the cold water test and simply confine themselves to the shearing test, would that be a satisfactory test?

Mr. Wilson.—Not in this country where you get the extreme humidity of the monsoon, especially in a place like Calcutta.

President.—The best thing would be the water test.

Mr. Wilson.—Yes, for that purpose.

Mr. Seaman.—There is one point that came up a little while ago. *Dr. Matthai* asked whether the inferiority lay in the glue or in the wood. From the strength tests made in the laboratory independently of hot and cold water tests, it would appear that the fault lay principally in the glue rather than in the wood.

Costs of adhesives.

Dr. Matthai.—You said a little while ago that you could give us some reliable data about the cost of adhesives.

Mr. Wilson.—We have made experiments and calculations to get the cost of our adhesive per tea chest, but it must be understood that they were not on a commercial scale. *Mr. Nagle* can give you details.

Mr. Nagle.—The cost comes to As. 6.

Dr. Matthai.—Per chest.

Mr. Nagle.—Yes.

Mr. Wilson.—You must understand that that such calculations are very liable to error.

Dr. Matthai.—On what side?

Mr. Wilson.—On either side. A calculation like that cannot be so reliable as the costing taken from a firm's accounts covering a period of months and a large number of chests.

President.—If you were producing on a commercial scale, would not that reduce the cost of the glue?

Mr. Wilson.—This cost includes the cost of labour. Producing a large quantity of chests would not greatly reduce the cost unless the suppliers were prepared to sell the adhesive cheaper. We approached them on the point and the reply was unsatisfactory. Casein is at the moment expensive. They have quoted a price which was approximately the same for a very large quantity as they are already charging for the small quantity we are getting.

President.—I noticed yesterday when you were making ply boards you had considerable margin for glue and you explained to me that as you were doing this experimentally, it was really not necessary to cut down the margin. If you were producing commercially, you would cut down the margin and save a certain amount of glue.

Mr. Wilson.—In the calculation of cost we made the other day, we had no such margin.

Mr. Nagle.—Casein cement is supplied to us by Messrs. Smith Stanistreet and Company, Calcutta.

Dr. Matthai.—What time was this?

Mr. Nagle.—About 2 years ago. Now it is Rs. 52. At that time it was Rs. 60 per cwt. in powder form. When made up into cement this quantity will cover an area approximately 6,000 square feet representing 3,000 square feet of 3-ply or 1,500 square feet of 5-ply. On the assumption that the average tea chest is 19" x 19" x 22" containing approximately 18 square feet of 3-ply the amount of casein powder required for a dozen such boxes would be about 8 lbs. at a cost of Rs. 4-2-0.

President.—Your gluing charges consist of what?

Mr. Nagle.—The actual making of the glue and application of it, but not overhead charges.

President.—If you were manufacturing 5 lakhs of boxes your charges would come down.

Mr. Nagle.—Considerably.

President.—By the drop in the price of casein which is very nearly a sixth, it will be one anna. It might be still further reduced by labour charges.

Mr. Nagle.—Yes.

President.—Taking the present cost of gluing it would not be really unreasonable to say that it would be between As. 4 and As. 5 a chest.

Mr. Wilson.—We cannot say that.

President.—I am taking your own figures. The reduction from Rs. 60 to Rs. 52 would give you a reduction of one anna, say from As. 6 to As. 5. If you were turning out 5 lakhs of boxes, there would be some reduction in labour.

Mr. Wilson.—Labour charges are only estimated.

President.—Even so there would be some reduction.

Mr. Wilson.—Probably.

President.—So that it might be between As. 4½ and As. 4½. It would not be As. 5. It would be something below that.

Mr. Wilson.—Probably.

Dr. Matthai.—Could you tell me what proportion of that As. 6 is labour charges?

Mr. Nagle.—About 10 per cent. The more glue made and used at one batch, the more economical.

President.—Then you wouldn't have so much wastage in your tanks. If you are not using glue continuously, your casein quickly dries.

Mr. Wilson.—Casein cement is not recommended for use after it has been standing for between 2 and 3 hours, by which time it resembles dough and will not spread.

President.—If, for example, you stopped gluing for a short time you might have to scrap a little glue.

Mr. Wilson.—Yes.

President.—When you work there is a certain amount of glue which goes on to the rollers and remains.

Mr. Wilson.—Very little. If the rollers are running all day in a commercial firm it only remains on the rollers once during the day.

President.—That is my point. In the case of a larger output that is inconsiderable. In the case of an experimental test, it might amount to something.

Mr. Wilson.—Yes.

President.—So that with your experimental tests it doesn't really reflect what might be attained if you were turning out commercially on a very large scale.

Mr. Wilson.—Quite.

Dr. Matthai.—We have heard a suggestion made that in the case of ply wood product like tea chests casein is a rather expensive kind of glue and it might be worth while trying to experiment on vegetable glues. Have you any opinion to express?

Mr. Wilson.—In the Forest products laboratory at Madison? In America, which corresponds to the Forest Research Institute here, they are making very extensive tests of adhesives and they claim to have discovered a vegetable glue which is a great deal cheaper than casein cement and is waterproof and efficient.

President.—That of course would be of very great interest to the Indian industry.

Mr. Wilson.—Yes.

President.—You I suppose contemplate conducting experiments on these lines.

Mr. Wilson.—They have promised to supply us with their formula and materials to make experiments here. I had it stated to me that they will be

quite ready to supply at the same time to manufacturers on payment of a royalty.

Dr. Matthai.—The sort of material they are using now, are they available in India?

Mr. Wilson.—I am not at liberty to say.

Opium Chest Specifications.

Dr. Matthai.—The Indian ply wood manufacturers told us that in the specifications which were issued in connection with the tender for opium chests last year certain specifications were such that it was impossible for Indian manufacturers to tender at all. Then we asked them whether they could suggest changes in the specifications which would enable them to quote and at the same time would not affect the strength of the boxes and they gave us two or three suggestions. I would like to ask you whether you considered that those suggestions could be carried out.

Mr. Nagle.—I prefer not to make any comment on it.

Quantity of wood required per chest, Wastage.

President.—Can you tell us what is the amount of wood in the log required for one tea chest of standard size in your plant? We find a considerable variation. The Assam Railways and Trading Company claim to be able to turn out tea chests—standard size 19" x 19" x 24"—at .75 cubic feet per chest in the log, whereas the Assam Saw Mills and Timber Company at any rate until recently have only been able to obtain results of one tea chest from 1.20 cubic feet in the log.

Mr. Wilson.—That would depend very largely on the shape and quality of the timber. Big cylindrical—not too big but sufficiently big—second logs would produce a much larger quantity of ply wood per cubic feet than twisted logs, unsound logs or logs with splits and cracks.

President.—Better results could be obtained by paying more attention to the timber in the forest itself.

Mr. Wilson.—I think that it is an undoubted fact that if they are going to make ply wood pay, they have got to use pretty nearly all the timber available in the area. If they are going to select certain species from a forest, they could improve matters by selecting only specially suitable timber, but there might not be enough of that material, in which case they would have to take less suitably shaped logs and have a bigger wastage.

President.—But the point is that the Assam Railways and Trading Company use hollong and the Assam Saw Mills and Timber Company use hollock. They both use one species only. The Assam Saw Mills and Timber Company use a little simul also. Of these two species, hollong and hollock, if they only selected the most suitable trees, they would be able to obtain better results. Would not that be possible?

Mr. Wilson.—Yes, provided extraction was of equal difficulty in both cases. It might however well be the fact that in one case there is a large quantity of first class timber easy of extraction and in the other the most suitable timber is more difficult to extract; it might pay them better to take less suitable wood rather than pay the extra cost of bringing out the better stuff from perhaps the far interior of the forest.

President.—You would not advocate selection on the spot?

Mr. Wilson.—I would advocate selection on the spot provided extraction is cheap.

President.—You would advocate selection to some extent.

Mr. Wilson.—Yes.

Dr. Matthai.—Apart from the character of the wood, is it possible to reduce wastage by improving your practice in the works? The problem as it presents itself to my mind is this. We have been told—not necessarily authorita-

tively—that the wastage on birch wood in a European factory is somewhere about 25 per cent.—it might be right or wrong—and here it is somewhere near 60 per cent. on the figures that we have received. Now part of that depends as you pointed out on the sort of wood.

Mr. Wilson.—Yes.

Dr. Matthai.—Is it possible for the manufacturers here in spite of the unsatisfactory character of the wood by improving practice to reduce this proportion of wastage?

Mr. Wilson.—I am not in a position to say that they can actually do so. I do not know what their practice is, but it is certainly possible to reduce wastage by making use of suitable and up to date methods. I do not say that they do not do so now.

Dr. Matthai.—Such as what?

Mr. Wilson.—I have got here a note written by Mr. Nagle in reply to a letter from Madras, which gives the matter in a compact form. Shall I read it to you?

Dr. Matthai.—Yes.

Mr. Wilson.—“I presume the question relates to rotary cut veneers, in which case the wastage incurred in cutting Indian timbers may come anywhere within the limits of 5 per cent. and 60 per cent. depending upon various factors:—I. Girth and length of log—(a) Sound logs of a large girth give a less relative wastage than small girth logs of the same quality. (b) Long logs give less relative waste in trimming than short logs of equal quality. II. Some species have a large amount of sapwood to peel through before the knife engages the heart wood; the percentage of waste in this direction varies considerably.

President.—Is not heart wood useless for veneers?

Mr. Wilson.—Not always.

President.—We were told that generally the heart is discarded.

Mr. Wilson.—In ornamental veneers they use heart wood. Mr. Nagle goes on to say:—“III. Apparently sound logs when boiled or steamed will very often develop radial cracks and checks resulting in short widths of veneer which as the periphery of the log decreases become smaller in section, causing waste. IV. Selecting and matching veneers for high class work creates considerable waste which would ordinarily be consumed in rougher type of work as tea chest making V. The core or portion which remains after peeling a log is a source of waste which varies according to the condition of the heart of the log. VI. A definite answer to the amount of waste is only possible based on the width of the lathe, average length and girth of logs used, amount of sapwood, condition of logs after boiling, purpose for which the veneer is made and possible outlet for cores.”

Where selection of finely figured veneers and panels are the only consideration, the waste may, if the logs are refractory reach 60 per cent. The minimum waste, which is almost nil, is obtained by catering for all classes of work, into which veneers can be introduced. After selection for high class work, the residue, according to quality, is made up into the cheaper type of article until finally the cuttings and sapwood veneers are converted into the “for use once only article” as fruit baskets, etc.

The cores are used up for box corner blocks and other purposes including the making of “wood wool.”

President.—You were saying that the heart which is, I understand from the manufacturers, now usually discarded might be used for ornamental purposes.

Mr. Wilson.—Certainly, the heart wood.

President.—That being so, if these companies turned out a certain number of panels for ornamental purposes, they would be able to use the heart.

Mr. Wilson.—Do you mean heart wood or core?

President.—I think they said heart. They explained very carefully that the heart of the log or tree was not always in the exact centre and that the heart wood had to be discarded. They added that whenever the heart was a little bit on one side, they got a poor return.

Mr. Wilson.—Yes, that would only apply for certain species. For tea chests they would have to discard the heart. What wood are they using?

President.—Hollong and hollock. They said that they could not use the heart for tea chests.

Mr. Wilson.—The heart wood would be harder than the sapwood.

Dr. Matthai.—Could you tell us what is the distinction between heart wood and core?

Mr. Wilson.—The small cylindrical piece which is left after the log has been cut down as far as the rotary cutter will work it is called the core.

Dr. Matthai.—It is simply the piece which your lathe cannot tackle any more.

Mr. Wilson.—Yes.

Dr. Matthai.—It does not depend on the quality of the stuff.

Mr. Wilson.—It does to a certain extent. If you get trees with heart shake you arrive at the core before you get to the limit of the cutting power of the machinery.

President.—It was explained to us by the Manager of the Assam Railways and Trading Company that when fixing the log in the lathe one had got to be careful in seeing that the chucks were in the centre of the heart and not necessarily in the centre of the log, because they could not use the heart.

Mr. Wilson.—That would refer to particular species—presumably to the species they are using.

President.—What would be the reason for that? You say that the heart is harder.

Mr. Wilson.—Yes, and possibly it is also due to colour and difference in density of the wood. In the case of logs with the heart not in the centre, if you put them on the rotary cutter, after sometime the same slices would contain heart wood and sapwood, so that they might be of different colours, and densities.

Mr. Seaman.—There might be some confusion between heart and heart wood. First of all, when you are peeling, you get the sapwood and then you come to the heart wood which is a considerable distance from the heart. The heart itself might be bad. But the heart wood is perfectly good. When you come to the heart wood, you go ahead peeling through the heart wood a considerable distance till you come to the heart.

President.—In many kinds of trees in the centre you see a circular or semi-circular portion which is dark. They discard hearts like that.

Mr. Seaman.—They probably go on the basis of colour or the density of timber or something of that sort.

President.—For instance, they think that the heart of simul is useless for matches. They discard the heart. When we went round the match works in Rangoon where they use simul. We saw big pieces discarded. The Western India Match Factory which uses genwa wood at Calcutta, are able to use their lathe down so much that the core left is only 1 to 1½ inches in diameter, whereas in Burma where they use simul they do not appear to be able to work down to such a small core.

Mr. Nagle.—Probably the reason is that the heart is usually cracked and of different density to the main body of timber in the log. The practice is to fix the chucks as near to the heart as possible.

Dr. Matthai.—Have you any information as regards the wastage in birch wood?

Mr. Nagle.—No.

Dr. Matthai.—On a point of calculation: supposing we have to find out the proportion of wastage in one of these Indian factories. Taking the figures, the amount of wood in the log that they use is 1.2 cubic feet. The result of that at the end of the whole process is a tea chest measuring 19"×19"×24". The actual content of that chest is .28 cubic feet and there are also the battens which account for .10 cubic feet. Now, supposing I add these two figures and get .38 cubic feet and suggest that the difference between .38 cubic feet and 1.2 cubic feet is the amount of wastage, would I be correct? Is that how you would estimate the wastage?

Mr. Nagle.—It is very difficult to estimate the wastage. Even in the same species, one log will give you more waste than another. It depends on the amount of sap you have to get through, shape of the log and that sort of thing.

Dr. Matthai.—Assume that we are thinking of simul and that these figures are the figures that they get on simul. When you speak of wastage, what exactly are you referring to? Is it the whole difference between the wood in the log and the actual amount of ply wood turned out at the end of the process?

Mr. Wilson.—It is the difference between the amount of timber in the log and the amount of timber that is used for any purpose.

Dr. Matthai.—Do you include the bark in your calculation?

Mr. Wilson.—I should think they do not.

Mr. Seaman.—The only way of getting any reliable information on wastage is to find out the difference between the total amount of timber bought in a month by a firm and the amount of useful material that they got from that.

Dr. Matthai.—Do you mean ply wood by useful material?

Mr. Seaman.—Not necessarily ply wood. Even battens, small baskets and things of that kind would be useful material.

Dr. Matthai.—Here they make nothing but tea chests. Whatever is wasted is used as fuel?

Mr. Seaman.—Then you must take the difference between the amount of timber in the log and the amount of wood in the tea chests.

President.—As regards wastage it would be hardly fair to make any comparison between India and other European countries because the manufacturers in other countries can and do use their waste in other ways.

Mr. Wilson.—It would be quite unfair.

Mr. Seaman.—Some of the big American firms use the cores for the manufacture of wood wool and other products, so that it is not fair to compare the wastage.

Mr. Wilson.—It is doubtful if there is any prospect of using the waste parts for the manufacture of fruit baskets, etc., in India, as they would come into competition with bamboo and cane baskets which would perhaps be cheaper.

President.—Would that require all special machinery?

Mr. Nagle.—Yes.

President.—But it would be worth while attempting this in India.

Mr. Nagle.—I should think so.

Power.

Dr. Matthai.—Just a question on power. I think an opinion was expressed in one of the notes prepared by the Research Institute, that it might perhaps be better for a ply wood factory to use steam than electricity because you can use the waste steam in the boiling tank and for gluing. May we take that as substantially a correct statement?

Mr. Nagle.—You require steam for your re-drier and roller drier and I think it is better if we could use steam altogether.

President.—Would there be any advantage in working everything direct by steam rather than by electricity manufactured by steam?

Mr. Wilson.—It is hardly a point which is capable of a definite reply. It varies according to locality, the source of power available, and so on. The point is that a supply of steam is necessary in a ply factory.

Mr. Seaman.—I think it would be better not to introduce electricity unless you have an outlet for some of your waste products. If you have got to dispose of all your waste products without a market, that is to say, if you have got to burn your waste products, it would probably be better to use steam without electricity. If, on the other hand, you can get a better market for your waste products then you may not have so much waste material left over to devote to steam power, and it might be better to have electric power. As *Mr. Wilson* just said, it varies in almost every locality, and the conditions prevailing there. For example, there are cranes required for most purposes; they are awkward to run by steam: there is nothing so good for an overhead gantry as electricity.

Best speed at which to run the lathes.

Dr. Matthai.—There was one point that you mentioned, *Mr. Wilson*, in your last letter about the pace at which the lathes worked. You said that a speed of 40 to 70 revolutions given by *Mr. Pearson* is excessive for Indian hard wood and later you go on to suggest difficulty in connection with the roller driers. I was wondering whether this difficulty was brought to your mind in connection with the tests that you carried out on Indian opium chests.

Mr. Nagle.—My experience with Indian hard wood is that anything above 25 to 30 revolutions is too quick.

Dr. Matthai.—Do you feel from what you have seen of Indian ply wood that their quality has somewhat suffered by the employment of excessive speed?

Mr. Nagle.—Yes, there is just the possibility that that might rupture the fibre and increase the load on the machine considerably.

President.—That might be a cause for excessive waste?

Mr. Nagle.—Yes.

Mr. Wilson.—There is one point I would like to make. The Inspector General of Forests was speaking about the availability of timber in India for the manufacture of ply boxes in reference to the possibility of a protective tariff penalizing the tea trade for a short time. I would like to point out that it might take a considerable number of years before there are sufficient ply factories to supply the Indian demand. I understand that the difference between the present supply of tea chests and the demand is very great and even though we here prove that excellent tea chests can be made from a large variety of Indian timbers, it does not follow that financial interests are going to accept our opinion and risk their capital in these ply factories to supply the necessary chests. It would not be a matter of a year or two, it would probably be considerable longer. The question of the erection of a 3 ply factory in Madras has been under consideration for several years and now it is about to be reconsidered and gone into in detail; even if it were to materialize it would take at least another three or four years before anybody would follow suit; they would watch the financial results and the costs involved, and only if these were satisfactory would anyone consider the advisability of risking the necessary capital in a similar venture.

President.—So that in your opinion in the next three or four years the number of tea chests which could probably be turned out by Indian companies or semi-Government companies would be comparatively limited?

Mr. Wilson.—That is so.

APPENDIX.

No. 3/2047-1.

FROM

THE FOREST ECONOMIST,
FOREST RESEARCH INSTITUTE,

TO

MESSRS. VICKERS LIMITED,
Vickers House—Broadway,
Westminster, London, S. W. I.

Dehra Dun, the 5th March, 1926.

DEAR SIRs,

Reference your letter No. CH/M.J.N. dated 7th October 1925. Tests on ply wood samples.

The samples of ply wood sent have been tested by our Officers in Charge of Timber Testing and Wood Working, and I enclose herewith copies of their reports showing the results obtained. I trust that you will find the reports interesting and that they may be of use to you.

2. The reports show that the plies which stood up best under test are those numbered 2015 to 2023 in your list; these were, I understand, made in England, whereas the others were of continental manufacture.

3. I would be very glad to know what glue was used by you in making up these plies as I find much difficulty in getting a suitable glue for use in this country.

4. As promised in a previous communication from this office on the subject, I am sending copies of the accompanying reports as well as of the previous reports to the Director General of Ordnances in India, as I feel sure that he will be interested to read them, and hope that he may be inclined to give your ply woods a trial for the manufacture of Sentry Boxes and Army Box Carts, in this country.

5. As regards paragraph 6 of your later letter dated 13th November 1925 I would point out that at this Institute, which is purely for research we do not manufacture on a commercial scale, but experimentally, our object being to induce commercial timber users to instal factories in this country. We have certainly supplied a large quantity of built up panels of various sorts for the decoration of the Council Chambers in new Delhi, but this is an exceptional case, for a Government purpose. If however there is any prospect of your considering the manufacture of ply woods in this country, where supplies of highly ornamental timbers are unlimited and cheap, I would be very glad to send you a variety of samples for your inspection, and could give you an idea of the cost of such timbers as you were interested in, either for export to England or for making up in this country.

OFFICE OF THE FOREST ECONOMIST, FOREST RESEARCH INSTITUTE.

Dehra Dun, the 5th February 1926.

Forest Economist,

Following is a note on specimens of ply wood supplied by Messrs. Vickers Limited for tests:

The work was carried out in conjunction with the Officer in Charge Wood Workshops whose report will be submitted separately. Fourteen specimens were submitted for strength tests. These were so cut up as to afford three matched specimens from each piece, one of which was tested in the condition as received, the second after it had been tested for its resistance to cold water soaking by the Officer in Charge Wood Workshops, and the third after it had been tested for its resistance to hot water soaking by the Officer in Charge Wood Workshops. The following table presents data which could be obtained from these tests.

2. In discussing the results presented in the table it is important to bear in mind that the number of samples supplied were scarcely 10 per cent. of what would be required from which to draw reliable conclusions.

3. The first column of the table gives the numbers allotted to these specimens by Vickers Limited. The second column gives the shearing strength of the glue joint in lbs. per square inch for all tests from which such data became available. In the case of Nos. 2019, 2020 and 2021 the glue held entirely and the failure of the tested joint was in wood alone. In the case of Nos. 2027 and 2028 the failures were about half and half glue and wood. Column three indicates the effect of water soaking on the specimens. So far as the strength tests were concerned the effect of cold water soaking and hot water soaking were the same so that it is not necessary to present separate columns. While it is unsafe to draw conclusions from such a very small number of tests the results indicate (1) that the shearing strength of glue joints No. 2015 to 2021 varied from about 250 to 300 lbs. except No. 2016 which failed at 80 lbs. Parts of the gluing however in 2015, 2016, 2018 and 2021 were badly done, the dry specimen from 2015 giving a strength of only 68 lbs. per square inch. The gluing in the other joints was comparatively uniform. (2) That specimen No. 2022 was not so strong, failing at a load of 160 lbs. per square inch. (3) That the glue joints No. 2024 to 2027 had a shearing strength of 125 to 150 lbs. per square inch and though the joints were weaker they did not show the unevenness found in 2015, 2016, 2018 and 2021. (4) That with the exception of 2017, water soaking either with hot or cold water had no appreciable effect on any of the joints 2016 to 2022. (5) That water soaking either with hot or with cold water completely destroyed all the joints 2024 to 2027. The layers actually came apart in the water and left no material for shear test after the soaking test.

(Sd.) L. N. SEAMAN,
Officer-in-Charge,
Timber Testing Section.

Vickers' Tests.

Specimen.	Glue shear Strength lbs.-sq. in.	Effect of Water, Hot and Cold.	REMARKS.
2015	310 lbs.	None	Some parts of joint poor. Dry specimen failed at 68 lbs. per sq. inch.
2016	?	"	All specimens failed at 80-89 lbs.
2017	305 lbs.	Slight weakening	Glue joint uniform. Water reduced strength only 40 lbs. per sq. inch.
2018	270 "	None	Uneven joints. Dry specimen failed at 70 lbs. per sq. inch.
2019	Wood failed.	"	Joints even. Failed at 150-160 lbs.
2020	" "	"	Joints even. Failed at 280 lbs.
2021	" "	"	Joints uneven. Failed at 90 lbs. to 230 lbs. per sq. inch.
2022	160 lbs.	"	Joints even.
2024	125 "	Total failure	
2025	125 "	" "	
2026	130 "	" "	
2027	Mixed failure	" "	150 lbs. per sq. inch. Failure half and half glue and wood.
2028	" "	" "	105 lbs. " "
2027	150 lbs.	" "	

Note on hot and cold water tests on ply wood supplied by Vickers Limited, Broadway, Westminster, London; S. W. 1.

Hot and cold water tests were carried out on 15 specimens of ply wood as described below.

Each specimen was cut into two sections, one of which was kept in hot water at an average temperature of 168°F until failure was produced, or to a maximum period of 8 hours.

The remaining section of each specimen was kept submerged in cold water at an average temperature of 50°F until the glue failed or to a maximum period of 10 days.

Sample No.	No. of pieces.	Size.	Thickness.	Description.
2015	2	6" x 2"	Birch $\frac{1}{4}$ "	7 ply, Birch throughout.
2016	2	6" x 2"	Teak $\frac{3}{8}$ "	3 ply, Teak both sides.
2017	2	6" x 2"	" $\frac{3}{8}$ "	5 " "
2018	2	6" x 2"	Mahogany 9 m.m.	5 ply, Mahogany one side, Birch one side.
2019	2	6" x 2"	" $\frac{1}{4}$ "	3 ply, Mahogany both sides.
2020	2	6" x 2"	Oak 5 m.m.	2 ply, Oak both sides.
2021	2	6" x 2"	" $\frac{1}{4}$ "	5 " "
2022	2	6" x 2"	Birch $\frac{1}{4}$ "	3 ply, Birch both sides.
2023	2	6" x 3"	" 1"	Birch both sides with cork core.
2024	2	6" x 2"	Walnut 7 m.m.	6 ply, Walnut both sides.
2025	2	6" x 2"	" 10 m.m.	8 " "
2026	2	6" x 2"	Mahogany 6 m.m.	5 ply, Sapale one side, Birch one side.
2027	2	6" x 2"	" 9 m.m.	6 " "
2028	2	6" x 2"	" 10 m.m.	8 ply, Plain Mahogany both sides.
2029	2	6" x 2"	Oak $\frac{1}{4}$ "	5 ply, Figured Oak one side, Birch one side.

The enclosed table of test results is based on hourly observations in the case of hot water, and daily observations in the case of cold water tests, and it was noted that eight specimens numbers 2015 to 2022 which withstood both hot and cold water tests, were of a better symmetrical construction than the specimens which either partially or totally failed.

In every case, faces which were 1/40 inch in thickness, parted from the crossbands and core at a very early stage. This was due to the thin veneers offering little or no resistance to water penetration, and also to the stresses not being symmetrically distributed, consequent upon the faces not being balanced and of equal density.

Owing to the difference in swelling and shrinkage of wood parallel to the direction in which the fibres run, the introduction of water created abnormal internal stresses on specimens which were constructed with an even number of plies. The cores of these specimens were made up of two plies with the grain running parallel having very thin faces with the grain parallel to the

crossbands. This method of construction apparently depends upon the glue being waterproof to enable the crossband and face to withstand, as one ply, against the stress set up by the action of water on the double core. In this particular test the core swelled and increased in width in a direction perpendicular to the grain to the extent of half an inch beyond the length of the crossband and face.

The scarfed joint appeared to be a weak point, as specimens which were otherwise sound, showed ruptures at the point where a scarf occurred. This method of jointing was also responsible for producing a difference in the otherwise uniform thickness of the specimens.

With regard to sample No. 2023, the wooden plies and glue held splendidly, but the cork core did not swell uniformly, with the result that the specimen became taper shaped.

Summary:—

Whatever advantage is claimed for ply wood which is constructed with an even number of plies, it is obvious from the foregoing results that this is not the best method of assembling veneers, and is not in accordance with ordinary practice.

To assist ply wood from either collapsing or becoming distorted it should be symmetrically built with an odd number of plies, each ply having a parallel ply of the same thickness and properties on the opposite side of the core.

This series of tests has indicated that particularly when ply wood is intended for service in a climate with a high percentage of humidity it is not advisable to have the face plies less than 1/32 of an inch in thickness.

C. C. WILSON,

Forest Economist.

The 4th March 1926.

W. NAGLE,

Officer-in-Charge,

Wood Workshops.

The 6th February 1926.

HOT WATER TEST RESULTS.				COLD WATER TEST RESULTS.			
Sample number.	Period of immersion.	Average temperature.	REMARKS.	Sample number.	Period of immersion.	Average temperature.	REMARKS.
2015	8 hours	168°F.	No degrade—all plies sound and of uniform thickness.	2015	10 days	50°F.	No degrade—all plies sound and of uniform thickness.
2016	8 "	"	Plies and glue sound—slight warp.	2016	10 "	"	No degrade—all plies sound and of equal thickness.
2017	8 "	"	Ditto, ditto.	2017	10 "	"	Perfectly sound
2018	8 "	"	Sound—No degrade.	2018	10 "	"	Sound—No degrade.
2019	8 "	"	Plies and glue sound—slight warp.	2019	10 "	"	Ditto.
2020	8 "	"	Ditto —badly warped.	2020	10 "	"	Plies and glue sound—slight warp.
2021	8 "	"	Sound—No degrade.	2021	10 "	"	Sound—No degrade.
2022	8 "	"	Sound—badly warped—but became straight upon drying out.	2022	10 "	"	Sound—slight warp—straightened itself upon drying out.
2023	8 "	"	Plies and glue intact; but owing to the cork core not having swelled uniformly the specimen has taken the form of a tapered wedge being 1 1/4" thick at one end tapering to 1" in a length of 6 inches.	2023	10 "	"	Plies and glue intact, but laps produced by the cork core having swelled unevenly.



HOT WATER TEST RESULTS.				COLD WATER TEST RESULTS.			
Sample number.	Period of immersion.	Average temperature.	REMARKS.	Sample number.	Period of immersion.	Average temperature.	REMARKS.
2024	1 hour	65°F	This specimen totally collapsed at the end of the first hour, due probably to the fact of the plies being even in number. The inside of core plies were glued together with the grain running parallel and drew out $\frac{1}{4}$ inch in length beyond the constant length of the outside plies. This inside core twisted very badly and set up tensions which the thin outside plies were unable to resist. The outside plies were much too thin to withstand the action of water.	2024	2 days	50°F.	The front and back plies being too thin to withstand water presented a total failure at the close of the second day when the specimen was taken from the water. The core was sound at this stage, but totally collapsed whilst drying out. The inside core twisted badly and drew out $\frac{1}{4}$ inch.
2025	1 "	"	The front and back plies were too thin to withstand the test and as a result they parted from the core in the course of 1 hour. The core remained sound but of uneven thickness due to the presence of a scarf.	2025	2 "	"	Both thin faces collapsed in 2 days. The core was sound, but of uneven thickness consequent upon a scarfed joint
2026	1 "	"	Total collapse of all plies in 1 hour. Face ply too thin, centre ply drawn out $\frac{1}{4}$ inch beyond length of outside plies.	2026	3 "	"	Total failure of very thin face ply. Core showed a 30 per cent. failure.
2027	8 hours	"	The thin veneered face of this specimen totally collapsed during the fourth hour of the test. The core remained sound except at the point where a scarf occurred on the centre plies. This defect produced a 30 per cent. failure of the core by the end 4th hour without further degrade at the close of the test.	2027	10 "	"	Thin face failed on the third day, but core remained sound except at the point where the plies were scarfed.

2028	5 "	"	The first hour of the test produced a total failure of both thin faces. The core remained perfectly sound.	2028	10 "	"	The thin faces collapsed on the second day. The core remained sound.
2029	8 "	"	The thin face failed at the end of the first hour. The core showed a 40 per cent. failure, and was badly twisted probably due to all the plies being of different thickness.	2029	10 "	"	The thin face failed on the second day. Back and core remained sound until dried out when the back showed a 25 per cent. failure.

C. C. WILSON,
Forest Economist.

W. NAGLE,
Officer-in-Charge,
Wood Workshop Section.

NOTE.—The term "Core" includes cross-bands.

The 4th March 1926.



Government of Madras.

(1) *Letter from the Tariff Board to the Government of Madras, No. 550, dated the 29th July, 1927.*

I am directed to state that the Tariff Board understands that the Forest Department of the Government of Madras is about to erect a plant for the manufacture of ply wood and tea chests, and to say that as the Board is at present engaged in an enquiry into the question of granting protection to the ply wood and tea chest industry in India, it would be very glad if it could be supplied with any information available as to the cost of the plant and machinery, including erection charges, and of the building of the factory proposed to be erected. I am also to say that it would also be of great assistance to the Board if the following information could kindly be supplied:—

- (1) The estimated capacity of the proposed factory in terms of—
 - (a) ply wood board (in square feet).
 - (b) tea chests.
- (2) The estimated cost of production of tea chests under the following heads:—
 - (i) Works costs—
 - (a) Wood.
 - (b) Cement.
 - (c) Labour.
 - (d) Supervision.
 - (e) Linings.
 - (f) Fittings.
 - (g) Fuel and power.
 - (h) Other charges.
 - (ii) Overhead charges—
 - (a) Depreciation at 6½ per cent. of capital cost.
 - (b) Interest on working capital.
- (3) The estimated cost of 3 ply board per square foot under the following heads:—
 - (i) Works costs—
 - (a) Wood.
 - (b) Cement.
 - (c) Labour.
 - (d) Supervision.
 - (e) Fuel and power.
 - (f) Other charges.
 - (ii) Overhead charges—
 - (a) Depreciation at 6½ per cent. of capital cost.
 - (b) Interest on working capital.
- (4) The species of wood from which it is proposed to manufacture tea chests and ply wood and the available supply of such wood.

- (5) The price during the past two years of—
 - (i) Imported tea chests showing separately—
 - (a) Price c.i.f. Madras.
 - (b) Landing charges, port dues, etc.
 - (c) Duty.
 - (d) Commission.
 - (ii) Imported 3 ply board showing separately—
 - (a) Price c.i.f. Madras.
 - (b) Landing charges, port dues, etc.
 - (c) Duty.
 - (d) Commission.

2. The information should please be given for tea chests and ply board of standard sizes which should be stated. I am to add that the Board hopes to complete the enquiry into the ply wood and tea chest industry by the end of August and would be glad to receive a reply by August 21st. It is realized that it may not be possible to supply information on all the points mentioned in so short a time, but it is hoped that such information as is readily available may be furnished by that date.

(2) *Letter dated 19th August 1927, from the Government of Madras.*

In reply to your letter No. 650, dated 29th July 1927, I am directed to state that the Chief Conservator of Forests has suggested as an experimental measure the installation of a three ply plant in 1928-29 estimated to cost (including erection and building charges) about Rs. 85,000. But no detailed estimates have so far been furnished to Government. They therefore regret that they are unable to furnish at present the information required by the Board. The Madras Government will, however, be glad to furnish all available information when the estimates which are under preparation are completed.

Chief Controller of Stores.

(1) *Letter No. 638, dated the 27th July 1927, from the Tariff Board to the Chief Controller of Stores, Simla.*

I am directed to inform you that the Tariff Board is about to commence an enquiry into the question of granting protection to the ply wood and tea chest making industry in India and in this connection would be glad if you could kindly supply information on the following points:—

1. What is the total annual demand for ply wood opium chests in India?
2. To what extent is Indian ply wood suitable?
3. By what authority are the specifications for ply wood opium chests drawn up?
4. What is the demand for ply wood in respect of panelling for railway coaches and for other public purposes?
5. What prices have been paid for ply wood opium chests during each of the past five years; what quantities have been purchased and what has been the source of import or purchase?

2. I am to ask if you would kindly send the Board a copy of the latest notice calling for tenders for the supply of opium chests, and also if the information asked for above could please be sent by the 16th August.

(2) *Letter, August 1927, from the Chief Controller of Stores, Indian Stores Department.*

In reply to your letter No. 538 of 27th July 1927, I regret that this Department has very little information available on the subject of Ply Wood Opium Chests and none in connection with Tea Chests.

Replying to your questionnaire *seriatim*—

1 and 5. This Department has only purchased Opium Chests for the Opium Agent since 1926 and the quantities ordered and prices paid so far are as follows:—

(a) During 1926—

5-Ply wood provision chests	2500 Nos.	@ Rs. 8 each.
3-Ply wood Abkari chests	4000 Nos.	@ Rs. 2-12 each.

(b) During 1927—

5-Ply wood provision chests	3700 Nos.	@ Rs. 7-12, each.
3-Ply wood Abkari chests	2000 Nos.	@ Rs. 2-12, each.

Both of the above contracts were placed with Messrs. Williamson Magor for imported "Venesta" Chests, prices being f.o.r. Calcutta.

I am not aware whether the above figures represent the total demand for the years 1926 and 1927, nor have I any information regarding previous years.

2. I have no information as to suitability. It will be necessary for you to ascertain this from the Opium Agent.

3. The specifications were supplied to this Department by the Opium Agent.

4. I have no information on this subject and it will be necessary for you to approach the Railway Board.

The following information may be of use to you. In 1926 Messrs. Bird & Co., Agents for the Assam Saw Mills and Timber Co., Ltd., quoted in com-

petition with Messrs. Williamson Magor for ply wood chests manufactured in India at the following rates:—

5-ply wood provision chests	@ Rs. 8, f.o.r. Ghazipur.
3-ply wood Abkari chests	@ Rs. 3-8, f.o.r. Ghazipur.

Samples of both ply woods were sent to the Opium Agent, *vide* enclosed copy of letter No. N/3618, dated 6th March, but the Opium Agent decided to accept the imported chests, presumably on the score of quality. I may add that Messrs. Bird & Co. did not submit a tender for the chests for which tenders were called for in April this year.

As regards paragraph 2 of your above quoted letter, I enclose herewith a copy of the latest notice calling for tenders and would remark that I received criticism from Messrs. the Assam Railways and Trading Co., Ltd., for the use of the word "Venesta" which was inadvertently mentioned in place of "ply wood."

The above represents the total information at my disposal on the subject of ply wood. Whilst I am anxious to afford you every assistance within my power, I think you will agree that no useful purpose can be served by my sending a Representative to give oral evidence on 23rd August as requested by you in your letter No. 646, dated 28th July and I shall be glad if you will confirm this immediately.

Enclosure No. 1.

Copy of letter No. N-3618, dated 6th March 1926, from the Chief Controller of Stores, Indian Stores Department, to the Managing Director, Benares Opium Agency, Ghazipur.

Reference to your No. 773, dated the 2nd of March, regarding the opium chests. I received two tenders on the 2nd of this month, one from Messrs. Williamson Magor & Co. and the other from Messrs. Bird and Co., on behalf of Assam Saw Mills and Timber Co., Ltd. The following are details of the tenders:—

(i) *Williamson Magor & Co.*—

Item I.—5-ply wood provision opium chests of 3/4" thick Venesta shooks, Rs. 8, f.o.r. Calcutta.

„ II.—3-ply wood Abkari opium chests of 3/16" thick Venesta shooks, Rs. 2-12, f.o.r. Calcutta.

The cases will be similar to those last supplied. We regret we are unable to quote rates f.o.r. Ghazipur. Delivery on receipt of supplies from home as usual.

(ii) *Messrs. Bird & Co.*—

Item I.—5-ply wood provision opium chests, Rs. 8, f.o.r. Ghazipur.

„ II.—3-ply wood Abkari opium chests, Rs. 3-8, f.o.r. Ghazipur. Delivery 2,500 each in May, 2,500 of each in June.

I have received a sample from Messrs. Bird and Company, and we have a sample box manufactured by Williamson Magor which was forwarded by you. The difference between the two samples is as follows:—

(1) Messrs. Bird & Co.'s 5-ply wood is thinner than Venesta and I send herewith a sample cutting of each, that marked 'A' being of Messrs. Bird & Co. Their 3-ply wood is slightly thicker than Venesta.

(2) The binding round the corners of Messrs. Bird & Co.'s box is of ordinary tin sheets 27 gauge thickness, whereas that of Messrs. Williamson Magor's is lead coated.

As regards general finish, there is very little to choose between the two samples. It will be noted that Messrs. Bird & Co.'s quotation for item I is slightly lower as it includes freight to Ghazipur. Messrs. Bird & Co.'s chest

appears to be equally strong, although the ply wood is thinner. If you will agree, I will suggest that the 5-ply wood chest be divided between the two and that the order for 3-ply wood chest be placed with Messrs. Williamson and Magor. Apart from the fact that Messrs. Bird & Co.'s box is entirely of Indian manufacture, and that they should, therefore, receive encouragement, it is also probable that the result of action as suggested will help to keep down quotations next year.

Enclosure No. 2.

Indian Stores Department.

The Chief Controller of Stores, Indian Stores Department (Hardware Section) New Delhi, is prepared to receive tenders for the supply of Venesta chests, 5-ply and 3-ply, 3,700 and 1,500 Nos. respectively (Tender No. H-1766).

Tender forms, etc., can be had from the office of the Chief Controller of Stores, Indian Stores Department, Simla, up to the 16th April, 1927, only, on payment of Rs. 3 (rupees three) per cent. of two copies which is not returnable.

Payment must be made by money order only. Tenders will not be sent by V. P. P.

Opium Agent, Ghazipur.

(1) *Letter No. 701, dated the 13th August 1927, from the Tariff Board, to the Opium Agent, Ghazipur.*

I am directed to inform you that the Tariff Board is at present conducting an enquiry into the question of granting protection to the ply wood industry in India and in this connection would be glad if you could kindly supply information on the following points:—

- (1) What is the total annual demand for ply wood opium chests in India?
- (2) To what extent is Indian ply wood suitable?
- (3) By what authority are the specifications for ply wood opium chests drawn up?
- (4) What prices have been paid for ply wood opium chests during each of the past five years; what quantities have been purchased and what has been the source of import or purchase?

I am to ask that this information may please be supplied as quickly as possible.

2. I am also to send you a copy of letter No. K-4522, dated Nil August 1927, received from the Chief Controller of Stores together with a copy of his letter No. N-3618, dated the 6th March, 1926, to the Managing Director, Benares Opium Agency, Ghazipur, dealing with the placing of tenders for ply wood opium chests and to ask if you would kindly depute the Managing Director to give oral evidence before the Board at 10-30 A.M. on the 31st instant at the Board's Office at No. 1, Council House Street, Calcutta, regarding the questions detailed above and the placing of orders for such chests.

(2) *Letter dated Ghazipur, the 20th August 1927, from Opium Agent, Ghazipur.*

In your letter No. 701, dated 13th August 1927, you ask for certain information with regard to the use of opium ply wood chests in connection with the question of granting protection to the ply wood industry in India and also request that the Managing Director may be deputed to give oral evidence before the Board.

2. The replies to the particular points mentioned in your letter are as follows:—

- (i) The demand for ply wood opium chests varies every year. Details are shewn in the attached statement from the year that the use of ply wood chests was adopted. This statement also gives all the information asked for in (4).
- (ii) Indian ply wood is suitable for opium chests provided that the specifications are adhered to.
- (iii) Specifications are drawn up by the Factory Officials with the general approval of the Opium Agent. The original specifications were made after consultation and with the approval of the Managing Director of the Surma Valley, Saw Mills. Some unimportant changes have been made since.
- (iv) The information asked for is furnished in the accompanying statement. This appendix also shews the quantities of mango wood chests purchased during the same periods and the prices paid for them.

3. I also attach a memorandum giving in fuller detail all the facts connected with the supply and use of ply wood opium chests since they were first adopted in 1923. I trust that this information will be found to furnish all the particulars required. It may be that the Board will not now regard the attendance of the Managing Director as necessary. If it is, he will duly attend but I should be glad if you would kindly let me know as early as possible whether his oral evidence is still needed or not.

Memorandum.

Prior to 1923 the factory used mango wood opium chests only, but as contracts were not always carried out satisfactorily and ply wood appeared to possess certain advantages over mango wood, it was decided, with the sanction of the Government of India, to make an experiment in that year with chests made of ply wood. 2,000 5-ply chests (large) and 2,000 3-ply chests (small) were accordingly purchased from the Surma Valley Saw Mills through their Managing Agents, Messrs. Bird & Co., Calcutta.

2. Shortly afterwards the mills went into liquidation, but the experiment was continued with Venesta chests for which a contract was placed with Venesta, Limited, through their Agents, Messrs. Williamson Magor & Co., Calcutta, the number purchased being 2,500 5-ply and 2,000 3-ply chests. Tenders for ply wood chests were invited by public notice but were received from Messrs. Williamson Magor & Co. only.

3. Similarly in 1925-26, a contract for 6,000 5-ply and 1,300 3-ply chests was again placed with Messrs. Williamson Magor & Co.

4. In the following year, 1926-27, the services of the Chief Controller of Stores were utilised in obtaining 2,500 5-ply and 4,000 3-ply chests. The Chief Controller of Stores reported that he had received two tenders for the contract, one from Messrs. Williamson Magor & Co. (Venesta), and the other from Messrs. Bird & Co. on behalf of the Assam Saw Mills and Timber Company. Samples of the Indian ply wood were sent to the factory for examination. Both tenders were fully considered by the Opium Agent and the factory officials. The Chief Controller of Stores had recommended that the contract for the 5-ply chests be divided between the two firms and that the order for 3-ply chests be placed with Williamson Magor & Co., but as the former did not conform to the specification, *viz.*, 14 plies to the inch and was a whole ply thinner, the whole contract was given to Venesta Limited, which supplied chests of the required specification and the chests of which had been found generally satisfactory. It was recognised at the time that it would be in accordance with the declared policy of the Government of India to utilise chests made in India if the latter were satisfactory and in order to reach a decision regarding the action to be taken in future years, the samples received from the Assam Saw Mills and Timber Company were sent to the Forest Research Institute for test. The report was not altogether favourable and the matter has been the subject of correspondence. When the requisite standard is reached, the purchase of the Indian chests will doubtless be considered by the Chief Controller of Stores in consultation with the Opium Agent and his technical advisers. In the meantime Venesta chests are being obtained. It must be clearly understood that opium is a dangerous drug under international conventions and the Opium Agent is unable to run any risk in the method of packing the chests. As it is, a few 3-ply chests have been damaged in transit on the railways, an almost negligible percentage of the number used, and it has been decided to use boards of slightly greater thickness in certain parts of the chests.

5. The use of mango chests does not probably fall within the scope of the enquiries being made by the Tariff Board, but it may interest the Board to know that the Madras Government have requested that ply wood chests may not be used for the excise opium supplied to them in future as much of the opium has to be reimported on receipt and ply wood chests can only be used once.

6. Although the use of ply wood chests has been justified by the results, the matter is still considered to be in an experimental stage both as regards the style of chest and the required strength of the material. There is little doubt, however, that their use will be maintained.

Contracts for Opium Chests.

Year	Ply wood.		Total.	Mango wood.		Total.	Grand Total.	Prices paid per chest.				Source of purchase.	Remarks.
	5-ply.	3-ply.		Provi- sion.	Abkari.			5-ply.	3-ply.	Mango wood pro- vision.	Mango wood Abkari.		
1923-24	2,000	2,000	4,000	2,500	3,900	6,400	10,400	Rs. A. 11 12	Rs. A. 4 4	Rs. A. 6 8	Rs. A. 3 4	Indian ply-wood from the Surma Valley Saw Mills.	
1924-25	2,500	2,000	*	11,045	5,000	16,045	16,045	8 0	2 12	6 8	3 4		
1925-26	6,000	1,300	11,800	5,160	1,472	6,632	18,432	8 0	2 12	7 0	3 8		
1926-27	2,500	4,000	6,500	2,000	1,000	3,000	9,500	8 0	2 12	7 0	3 8	Imported ply-wood from Venesta Li- mited.	
1927-28	3,700	2,000	5,700	500	1,500	2,000	7,700	7 12	2 12	7 0	3 8		

* The contract for 1924-25 was not completed till 1925-26.

Questionnaire for the Importers of tea chests and 3-ply board issued by the Tariff Board on the 27th July 1927.

1. Please state the country of manufacture of—
 - (a) panels;
 - (b) fittings;
 - (c) linings
 of the tea chests imported by you.
2. Please state whether it is your practice to import panels, fittings and linings in separate packages, or whether the different parts are imported together in the same package.
3. Please state the current prices of 3-ply tea chests—
 - (1) measuring 19" × 19" × 24", and
 - (2) of other standard sizes
 under the following heads:—
 - (a) f.o.b. port of shipment;
 - (b) freight, insurance, etc.;
 - (c) landing charges;
 - (d) duty;
 - (e) discount, commission, etc.;
 - (f) freight from Calcutta to the principal upcountry markets (which should be specified).
4. Please state—
 - (1) Current prices of (a) fittings; (b) linings, of a tea chest 19" × 19" × 24".
 - (2) Materials used in fittings and linings and the quantity of each.
5. Please state current price of 5-ply opium chest under the heads detailed in question 3.
6. Please state—
 - (1) The materials used in fittings and linings of 5-ply opium chests and the quantities of each.
 - (2) The current prices for fittings and linings for a 5-ply opium chest.
7. Please state the current price of 3-ply board of standard sizes other than that imported for tea chests under the heads specified in question 3.
8. Please state the prices f.o.r. Calcutta of—
 - (a) 3-ply tea chests;
 - (b) 3-ply board other than that imported for tea chests in 1912 and in each of the past five years.

Messrs. Davenport and Company, Limited, Calcutta.

Letter dated the 12th August 1927.

We have for acknowledgment your letter No. 672, in reference to the communication we sent you regarding the questionnaire addressed to the Ply Wood Importers, and as requested by you, give hereunder the following full information regarding the two brands of tea chests for which we act as Distributors in North Eastern India.

1. (a) The panels are imported from Finland.
 - (b) The fittings are manufactured in the United Kingdom.
 - (c) Aluminium Linings are shipped from Genoa in Italy, but we do not know whether that is the country of origin or elsewhere in Central Europe.
 2. Up to the present time it has been our practice to import the various components separately, but we are now arranging, at Buyers' option, for them to be shipped in one container.
- The additional cost for this is 2½d. per chest, irrespective of size, on the c.i.f. price, and we propose charging Buyers Re. 0-1-6 per chest, and the balance therefore reduces our gross profit shown hereunder, which is based on chests with components packed separately.
3. (1) The current price of "Serdang" brand 19" × 19" × 24" with a Lead Lining is Rs. 3-8-6 and with an Aluminium Lining Rs. 3-4-0.
 - For the "Spartan" brand box of this size the price is Rs. 3-5-0 and Rs. 3-1-0 respectively.
 - (2) Our two other standard sizes are 19" × 19" × 22" and 16" × 16" × 20". Prices for the "Serdang" chest being Rs. 3-6-3 with lead lining, and Rs. 3-1-9 for Aluminium for the larger chest, and Rs. 2-10-9 for lead and Rs. 2-7-3 with Aluminium for the smaller chest.
 - "Spartan" prices are Rs. 3-3-0 and Rs. 2-15-0 respectively, for the former chest, and Rs. 2-8-0 and Rs. 2-5-0 for the latter.
 - (a) and (b) The f.o.b. port of shipment, freight and insurance costs are unknown to us, as we are invoiced c.i.f. for each component.
 - (c) Landing charges—We have a contract with an Indian clearing concern at Re. 0-0-11 per chest for chests despatched direct from the jetty, and Re. 0-1-0 per chest for those which are first taken into our godown at Nimtollah.
- These rates are added to our c.i.f. prices to arrive at the f.o.b./f.o.r. value to us without duty.
3. (d) Duty charged is 15 per cent. on the c.i.f. prices.
 - (e) We allow 2½ per cent. discount on cash orders. Commission is variable from 2½ per cent. up to 5 per cent. Both are on the f.o.b./f.o.r. rates. Our maximum gross profit calculated to arrive at f.o.b./f.o.r. rates is 15 per cent. on c.i.f. prices. This percentage is reduced by any discount or commission allowed.
 - (f) We are not conversant with freights to up-country markets as we have no mofussil branches.
 4. (1) The current price of fittings for 19" × 19" × 24" chests is 8½d. c.i.f. per chest, and 7½d. for Aluminium Linings and 11½d. c.i.f. per chest for lead linings.
 - (2) The material for our "Serdang" brand is terne plate, and for our "Spartan" chest black metal. Bifurcated rivets, tenter hooks, and 1½" French wire nails are provided with each make.
- In Lead Linings there is a mixture of lead, tin and antimony but any other content there may be in the fittings, these linings, and also the Aluminium, other than that metal and tin, is unknown to us.

5 and 6. We have not imported any Opium chests up to the present time, so are unable to give the information requested.

7. We do not import ply wood boards other than for tea chests of the standard sizes already referred to.

8. (a) We have been Agents for the "Serdang" chest since 1925, and give f.o.b./f.o.r. prices for this make for that year, and for 1926 and 1927.

Selling prices of "Serdang" tea chests in the year 1925—

	Rs.	A.	P.
19"×19"×24", each	4	1	0
19"×19"×22", "	3	14	0
16"×16"×20", "	3	4	0

Selling prices of "Serdang" tea chests in the year 1926—

	Rs.	A.	P.
19"×19"×24", each	3	15	3
19"×19"×22", "	3	12	6
16"×16"×20", "	3	2	0

Selling prices of "Serdang" tea chests in the year 1927—

Sizes.	2 oz. Lead Linings.	Alum. Linings.
	Rs. A. P.	Rs. A. P.
19"×19"×24", each	3 8 6	3 4 0
19"×19"×22", "	3 6 3	3 1 9
16"×16"×20", "	2 10 9	2 7 3

The "Spartan" brand has only been introduced on the Market this year, and present prices are as under.

Selling prices of "Spartan" tea chests in the year 1927—

Sizes.	2 oz. Lead Linings.	Alum. Linings.
	Rs. A. P.	Rs. A. P.
19"×19"×24"	3 5 0	3 1 0
19"×19"×22"	3 3 0	2 15 0
16"×16"×20"	2 8 0	2 5 0

(b) Tea chests sold only.

Messrs. McLeod and Company, Calcutta.

Letter dated 9th August 1927.

We have to acknowledge receipt of your letter No. 630, dated 27th ultimo, forwarding a copy of the Tariff Board's questionnaire for importers of tea chests and 3-ply boards in connection with the forthcoming enquiry into the question of the protection of the ply wood and tea chests industry in India and append herewith our replies to the questions asked.

1. (a) Finland.

(b) England.

(c) Linings are now manufactured in Bengal but were imported from England previous to 1927.

2. Three methods of packing are used, viz., 1 case containing 10 sets Panels, Battens and Fittings or Panels and Battens in sets of 10 or Panels in sets of 10 and Battens and Fittings in sets of 50 packed separately.

3. As Agents we are not in possession of the necessary information to answer this question as detailed and therefore answer as fully as possible with the information at our disposal. Rupee prices are calculated at exchange 1s. 6d. (a) and (b).

Sizes.	Prices c.i.f. Calcutta.
	Rs. A. P.
20"×20"×24"	3 5 4
19"×19"×24"	3 0 11
19"×19"×22"	3 0 0
16"×16"×20"	2 5 4

per chest complete.

(c) and (d).

Prices f.o.r./b. Calcutta.

	Rs. A. P.
20"×20"×24"	3 14 3
19"×19"×24"	3 9 3
19"×19"×22"	3 8 0
16"×16"×20"	2 11 6

per chest complete.

Luralda 1d. supply one quality of Panels, Battens and Fittings. We do however market a lighter quality of lead lining which allows of a reduction of approximately 2 annas per chest f.o.r./b.

The above prices are for Season 1926-27 and to date we have no indication from our London Principals regarding prices for Season 1927-28.

(e) No discount or commission is allowed. A bonus for orders exceeding 25,000 complete boxes is considered.

(f) We regret we are unable to give our prices for tea chests landed at the principal upcountry markets as we invariably sell f.o.r./b. Calcutta. Freight is usually paid by us and the actual amount as shown on the Railway or Shipping Companies' receipt, is recovered from the purchasers.

4. (1) (a) The current price of Fittings for one chest size 19"×19"×24" is annas 12 f.o.r./b Calcutta.

(b) For lead linings for one chest size 19"×19"×24" annas 12 f.o.r./b. Calcutta.

(2) A set of fittings consists of 4 flat tinplate strips and 8 bent tinplate strips with approximately $\frac{1}{2}$ lb. of nails, rivets and staples. A set of lead linings consist of one body sheet, one top sheet and one bottom sheet.

5, 6 and 7. We do not import opium chests or 3-ply board.

	Rs.	A.	P.
8. (a) Season 1923—			
Irat	5	1	9
Iros	4	12	9
Tifot	4	9	0
Half	3	9	0
Season 1924—			
Irat	4	14	0
Iros	4	10	0
Tifot	4	7	0
Half	3	6	6
Season 1925—			
Irat	4	13	0
Iros	4	9	0
Tifot	4	6	0
Half	3	8	6
Season 1926—			
Irat	4	4	0
Iros	3	14	9
Tifot	3	12	9
Half	2	14	6
Season 1927—			
Irat	3	14	3
Iros	3	9	3
Tifot	3	8	0
Half	2	11	6

Prices for 1912 are not available; we were appointed agents in 1919.

(b) We do not import 3-ply board.

The Planters' Stores and Agency Company, Limited, Calcutta.

Letter dated the 8th August 1927.

We are in receipt of your letter No. 655 of the 1st instant in connection with the questionnaire recently issued by your Board in connection with the application by the Indian Mills for protection of the indigenous ply wood and Tea Chest Industry.

In reply we would remark that as we are only importers, we have no knowledge of manufacturing costs as we either import ply wood chests for our own requirements, or to sell again to other consumers at a profit.

In view of this, we are answering the questions raised in your questionnaire from the importers point of view and not as manufacturers, and we trust the information will be of service.

As regards paragraph 2 of your letter No. 260 of the 27th July, we beg to advise that having furnished you with the information required we do not think any good purpose would be served by an oral examination.

Answers to questionnaire for the importers of tea chests and 3-ply wood.

1. (a) Finland.
- (b) England.

2. Some are imported together, and some are in separate packages according to the quality of the chest.

3. (1) Our lowest prices for our standard chests ex-Calcutta stocks are as follows:—

Quality.	Size.	With head Linings.	With Aluminium Linings.
		Rs. A. P.	Rs. A. P.
Hercules No. 3	19×24	3 9 0	3 5 0
Ajax	19×24	3 7 0	3 3 0

(2) Our prices are all c.i.f. for ply wood and fittings and Aluminium Linings and f.o.b. Calcutta for lead Linings, and we therefore answer your questions accordingly:—

Size, 19×24.

(A) Plywood and fittings c.i.f. Calcutta.

(B) "Hercules", 3s. 3½d.

"Ajax", 3s. 2½d.

Linings Lead f.o.b. Calcutta 1s. 4½d.

(C) Handling charges, Rs. 2-8-0 per 40 cubic feet, say 1½ pie per chest.

(D) Duty, 15 per cent. on 3s. 3½d. or 3s. 2½d.

(E) Discount, etc., nil.

(F) Freight up-country by steamer to Dibrugarh Ghat approximately As. 3 per chest.

NOTE.—Linings Aluminium, 10½d. per chest c.i.f. Calcutta, Duty and clearing to be added. These prices are what we should charge our gardens if ordered from home and include our profit.

4. (1) Our present net cost for terne plate fittings for 19×24 chests is As. 9 per chest, and 2 oz. lead leadings As. 13-6 per set. We only import these as spares to replace shortages.

(2) Fittings are principally made from terne plate, but some are supplied in Bright Tin and Black Metal, the latter being slightly cheaper. Linings are supplied in both lead and aluminium—the latter being the cheaper. The enclosed specification will give the quantities of each item that go to make up a chest.

5 & 6. We do not handle these lines.

7. Our last supply of 3-ply boards for other purposes than Tea Chests can be sold at from As. 3 to As. 10 per square feet, according to size—the large sheets being more expensive.

8. We have only imported for resale since 1924 and our nett prices f.o.b. Calcutta, have averaged approximately:—

	1924.	1925.	1926.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
19×24 Hercules	4 2 0	3 14 0	3 12 0
19×24 Ajax	4 0 0	3 12 0	3 10 0

We have only imported plywood for other purposes than tea chests this year.

Specification for 1 chest.

“Hercules.”

	19"×19"×24"	16"×16"×18"
Corner Metals, Flat	3	3
Corner Metals, Angled	1	1
Tops and Bottoms Metals, Angled	8	8
Rivets	88	56
1½"×13G., Nails for Battens	24	24
¾"×14G., Nails for Top and Bottom Metals	56	40
¾"×14G., Nails for Ends of Corner Metals	16	16
1"×13G., Staple Hooks	44	40
Parchment Batten Covers, 6" wide	8	8

Specification for 1 chest.

“Ajax” Brand.

	19"×19"×24"	16"×16"×18"
Corner Metals, Flat	3	3
Corner Metals, Angled	1	1
Tops and Bottoms Metals, Angled	8	8
Rivets	80	54
1½"×13G., Nails for Battens	24	24
¾"×14G., Nails for Top and Bottom Metals	48	40
¾"×14G., Nails for Ends of Corner Metals	16	16
1"×13G., Staple Hooks	40	40
Parchment Batten Covers, 6" wide	8	8

Messrs. Williamson Magor & Company, Calcutta.

A.—WRITTEN.

(1) Letter dated the 10th August 1927.

With reference to your letter No. 630, dated the 27th ultimo, we now beg to hand you herewith our replies (with 5 spare copies as desired) to the questionnaire submitted by the Tariff Board.

Having given the fullest possible information in our replies to the questionnaire which appears to cover all points relevant to this enquiry, nothing remains requiring oral amplification.

Should however the Board wish to bear oral evidence we are at their disposal and will arrange to attend on hearing from you.

Enclosure.

Replies to the Tariff Board's Questionnaire.

1. (a) Panels are manufactured in Esthonia and Finland.

(b) Fittings are manufactured in England and Metal Corners also in India.

(c) Lead Linings are manufactured in India.

Aluminium Linings are manufactured in England.

2. Panels and fittings are imported either in separate cases or 10 or 12 complete sets in one case, according to buyers' requirements. Linings when imported from Home (Aluminium) are packed in separate packages.

3. We regret we are unable to give current prices under headings (a), (b), (c) and (d) as it has been our Principal's custom to quote Rupee prices either ex-quay or f.o.r./f.o.b. Inland Steamer, Calcutta.

The answers under Question 1 explain the reason for this.

The several parts which go to make up a complete tea chest being—

We are Agents for Messrs. Venesta Limited, only. To offer an example, we could not quote what the price of Venesta Panels might be f.o.b. a port in Northern Europe because our knowledge of the Company's business does not extend to such matters.

As regards (e) we have to advise that the prices quoted hereafter are nett and that we do not grant discount or commission.

We append hereto a statement giving the prices of standard sizes of tea chests ex-quay f.o.r./f.o.b. Calcutta, and landed at various Up-Country Stations in the Tea Districts. (Appendix 1).

4. (1) Current prices of (a) Fittings for a 19/24 chests are annas 9 per chest and (b) Linings annas 15 per chest.

(2) The materials used in fittings and linings are as follows:—

For a 19"×19"×24" Chest.

	lbs.	ozs.
1. Lead lining, 2 oz. C./Metal	2	7-26
2. Metal Corners (made from terne plates)	1	2-5
3. 1½" Nails		75
4. ¾" Nails		1-75
5. Rivets		2
6. Staples		2

5. We are unable to reply to this question under the headings detailed in question 3, as the only basis on which Opium chests have hitherto been sold is f.o.r. Calcutta at prices fixed by Venesta Limited, London, the current prices being:—

	Rs. A. P.	
34½"×26½"×14" (5-ply)	7 12 0 each	} f.o.r. Calcutta.
24½"×20"×8" (3-ply)	2 12 0 ,,	

6. (1) The materials used in the fittings are as under:—

For a $34\frac{3}{8}'' \times 26\frac{1}{8}'' \times 14''$ Opium Case.

	lbs.	ozs.
1. Metal Corners	4	7
2. $1\frac{1}{8}''$ Nails		9 $\frac{1}{2}$

For a $24\frac{3}{8}'' \times 20'' \times 8''$ Opium Case.

	lbs.	ozs.
1. Metal Corners	2	7 $\frac{1}{2}$
2. $1\frac{1}{8}''$ Nails		7.25
3. Rivets		.75

N.B.—There are no linings supplied with Opium Cases.

(2) We are unable to give prices for Opium case fittings, as these have not been supplied separately, nor have we been quoted any price by our Principals.

7. We are unable to reply fully to this question under the headings specified in question 3 for the following reasons.

(1) The prices at which plywood boards are sold are fixed by our Principals.

(2) Boards are usually imported in large quantities of different sizes and thicknesses, and we are given the c.i.f. value of the whole consignment only, not of each size of board, and it is impossible accurately to apportion landing charges, duty, etc., to the various sizes of boards. To assist the Tariff Board in obtaining some information as to the expense incurred under the headings specified in Question 3, we give the following figures relating to a consignment recently received consisting of one size of Board only, viz., $48'' \times 48'' \times 3/20''$.

	As. p.
The c.i.f. Value was invoiced at 2d. per square foot, e.g., $\frac{1}{4}$ Exchange . . .	1 9 $\frac{1}{2}$
Landing charges per square foot . . .	$\frac{1}{4}$
Duty per square foot	3
Transport charges to K'hati per square foot	$\frac{1}{3}$
Total, say	2 1 per square feet.

Our selling price is fixed to allow for cost of storage, handling, depreciation and insurance, etc.

Our current price list is attached (Appendix 2).

The prices quoted however are *ex* our Kamarhati Warehouse and not f.o.r. Calcutta.

8. (a) The prices of 3-ply Tea chest f.o.r. Calcutta in 1912 and in the years 1922—26 were as follows:—

Venesta.

	1912.	1922.	1923.	1924.	1925.	1926.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
$19'' \times 19'' \times 24''$	2 14 0	5 14 0	4 4 0	4 10 0	4 0 0	3 12 0
$19'' \times 19'' \times 22''$	2 12 0	5 8 0	4 0 0	4 6 0	3 13 0	3 10 0
$18'' \times 18'' \times 20''$	2 7 0	4 12 0	3 9 0	3 14 0	3 8 0	3 7 0
$16'' \times 16'' \times 20''$	2 3 0	4 0 0	3 1 0	3 5 0	3 0 0	2 15 3
$15'' \times 15'' \times 18''$	1 14 0	3 8 0	2 13 0	3 1 0	2 12 0	2 12 0

Compolite.

	1912.	1922.	1923.	1924.	1925.	1926.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
$19'' \times 19'' \times 24''$	Not imported.	4 12 0	4 0 0	4 4 0	3 11 0	3 8 0
$19'' \times 19'' \times 22''$		4 9 0	3 13 0	4 1 0	3 8 0	3 6 0
$18'' \times 18'' \times 20''$		4 3 0	3 7 0	3 10 0	3 4 0	3 4 0
$16'' \times 16'' \times 20''$		3 10 0	3 0 0	3 2 0	2 13 0	2 13 6
$15'' \times 15'' \times 18''$		3 2 0	2 12 0	2 14 0	2 9 0	2 10 0

(b) We attach herewith six price lists of plywood relating to the years 1912, 1922, 1923, 1924, 1925 and 1926 respectively.

(Appendices 3 inclusive)*.

N.B.—The rates given are *ex* our Kamarhati Warehouse, and not f.o.r. Calcutta.

*Not printed.

APPENDIX 1.

Venesta Chests.

Size of Chests.	quay.	f.o.r., Calcutta.	Landed Tezpur.	Landed Debrugarh.	Landed Juri.	Landed Sookerating.	Landed Bordubi Road.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
$19'' \times 19'' \times 24''$	3 6	3 8	3 9 9	3 10 6	3 10 9	3 11 9	3 12
$19'' \times 19'' \times 22''$	3 4	3 6	3 7 9	3 8 6	3 8 9	3 9 9	3 10
$18'' \times 18'' \times 20''$	3 0	3 2	3 3 9	3 4 6	3 4 9	3 5 9	3 6
$16'' \times 16'' \times 20''$	2 10	2 12	2 13 9	2 14 6	2 14 9	2 15 9	3 0
$15'' \times 15'' \times 18''$	2 6	2 8	2 9 9	2 10 6	2 10 9	2 11 9	2 12

Compolite Chests.

$19'' \times 19'' \times 24''$	3 2	3 4	3 5 9	3 6 6	3 6 9	3 7 9	3 8
$19'' \times 19'' \times 22''$	3 1	3 3	3 4 9	3 5 6	3 5 9	3 6 9	3 7
$18'' \times 18'' \times 20''$	2 13	2 15	3 0 9	3 1 6	3 1 9	3 2 9	3 3
$16'' \times 16'' \times 20''$	2 8	2 10	2 11 9	2 12 6	2 12 9	2 13 9	2 14
$15'' \times 15'' \times 18''$	2 4	2 6	2 7 9	2 8 6	2 8 9	2 9 9	2 10

The above prices are for Shooks, Battens, Fittings and 2 oz. C/M Linings. If Aluminium linings are preferred to 2 oz. C/Metal, the prices of chests size $18'' \times 18'' \times 20''$ and upwards are subject to a reduction of annas 2 per chest, and chest size $16'' \times 16'' \times 20''$ and downwards anna 1 pies 9 per chest.

(2) Letter dated the 17th August 1927.

We send you herewith a branded Venesta tea shook, from which you will observe that our Principals are prepared to buy back Venesta cases when empty, but we regret to find we have no particulars as to the price paid by them for such empties. We shall be pleased to obtain this information from London if you so advise us.

With regard to your enquiry as to the annual quantity of chests purchased from Venesta Limited by Messrs. Williamson Magor & Co. for tea gardens in their Agency, the approximate figures for the past 3 years are as follows:—

	Chests.
1924	2,56,000
1925	2,53,500
1926	2,44,000

MESSRS. WILLIAMSON MAGOR AND COMPANY.

B.—ORAL.

Evidence of Mr. E. R. COLMAN, recorded at Calcutta on the 17th August 1927.

Introductory.

President.—We are very much obliged to you, Mr. Colman, for coming to give evidence to-day because Messrs. Williamson Magor and Company, who are the agents of the Venesta Company, are the only one of the tea chest importers who have volunteered to give evidence before us. You are appearing, I understand, on behalf of Messrs. Williamson Magor and Company in reference to the Venesta chests?

Mr. Colman.—Yes.

President.—What is your position in the firm?

Mr. Colman.—I am the junior partner of Messrs. Williamson Magor and Company.

The position of the importers of tea chests.

President.—Before referring to the figures which you have been good enough to give us, we should be obliged if you could state the exact position in which you stand as importers in relation to this enquiry. So far we have had no definite statement from importers as to whether they are opposed to the grant of protection or whether they are indifferent to it or whether they are in favour of it.

Mr. Colman.—The Venesta Company was a little doubtful of the position. That is to say if the Indian mills constitute a tea chest industry because they make panels, whether this company which is also making the other integral part of tea chests, namely linings, fittings is also able to qualify for protection. We were not very sure of the lines the Tariff Board was going to take.

President.—I do not quite follow your point. Are you trying to ascertain whether the scope of the enquiry is limited to the manufacture of panels and if it is not so, whether you as manufacturers of linings and fittings would also qualify for protection; is that your point?

Mr. Colman.—Yes; are you examining us to see whether we ought to call ourselves an Indian tea chest industry or not? I must say that we did not realize that by making one half of the parts of a tea box we might possibly qualify for protection. Without knowing in what way you are going to examine me, we are here to give any help we can.

President.—In the absence of any application from you for protection on linings and fittings we take it that there is no case for protection?

Mr. Colman.—No, but I might be permitted to point out that by selling to the Assam Saw Mills and Timber Company lead linings and fittings we enable them to quote for complete boxes which may be turning them into a tea chest industry.

President.—Perhaps I had better refer to the terms of reference. The actual terms of reference are (1) "whether having regard to the principle laid down in the resolution adopted by the Legislative Assembly on the 16th February 1923, the ply wood and tea chests industry should be protected; (2) If so, in what form and for what period protection should be given; (3) If not, whether, in view of the fact that tea chests and lead sheets for the chests are ordinarily imported for the purpose of re-export, the existing import duty of 15 per cent. should be discontinued".

Mr. Colman.—It does refer to lead sheets. I did not know that.

President.—The sheets and for that matter fittings being portion of tea chests would naturally come within the scope of this enquiry.

Dr. Matthai.—You are not suggesting, are you, that the production of lead linings in India is at present rather difficult to carry on because the price of imported linings is so low.

Mr. Colman.—I suggest that aluminium linings can now be produced and landed here so cheaply that they can compete with lead linings.

President.—Is there any advantage about aluminium linings?

Mr. Colman.—No, but many thousands of them are used now. We have started to make them ourselves. When they first began to be imported I heard people say that they were rather flimsy but I suppose that would be adjusted by this time.

President.—Is there any prejudice against them?

Mr. Colman.—I think people prefer lead, but many use aluminium.

Dr. Matthai.—If you thought of producing aluminium linings in India are there the necessary materials here?

Mr. Colman.—We have not so far attempted to do it.

Dr. Matthai.—Are fittings made here?

Mr. Colman.—They are made here at Kamarhatti.

Dr. Matthai.—You can get tinplate from the Tinplate Company of India?

Mr. Colman.—We may, but I do not think so. At present we pay a 10 per cent. duty on imported terne plate.

Dr. Matthai.—Is that really steel coated? What is the coating?

Mr. Colman.—I do not know, terne plate is coated with tin I think. If you want that sort of information I can supply it by getting my mill manager over here.

Dr. Matthai.—It is not really important. Could you give me approximately the difference in price between aluminium and lead linings?

Mr. Colman.—About 2 annas per set of linings.

President.—Leaving out of account for the moment the question of linings and fittings, what is your attitude towards protection of ply wood for tea chests?

Mr. Colman.—The production in India has so far been so small that we have not taken serious notice of it. Some of the Assam saw mills are customers of this Company for lead linings and until they begin to get a larger number of orders and come into competition with the Venesta boxes, it naturally suits the Venesta Company to supply them with lead linings and fittings. Far from being their competitors we have enabled them to sell their tea chests.

President.—So that the establishment of the industry here would be satisfactory from your point of view?

Mr. Colman.—As far as linings are concerned but it would be most unsatisfactory if it prevented the sale of Venesta tea chests and we came into serious collision.

President.—Of course the requirement of India is something like 30 lakhs of chests.

Mr. Colman.—And their output has been so small that we have had no objection to selling them linings.

President.—In the near future their production is not likely to exceed 6 lakhs of chests so that your attitude in the next few years would probably be that your company would find in the Indian industry an outlet for its linings and fittings?

Mr. Colman.—Certainly.

Competition among imported makes.

Dr. Matthai.—You have been first in the field in India. Would you care to tell us whether during the past three or four years you have met with more serious competition from importing houses?

Mr. Colman.—Yes, there has been rather keen competition from importing houses. Now aluminium linings among other things are cutting into Venesta's sales. The 'Imperial' Company bring these out.

President.—Do you use aluminium linings yourselves?

Mr. Colman.—We don't.

President.—Have you any information as to the reason for the severe competition in the trade just now?

Mr. Colman.—Last year's tea crop was larger than usual and then again more boxes are being produced and I suppose the Finland people have improved their factories and their output has increased. It is now cheaper to send out boxes.

President.—You put it down mainly to increased output of ply wood in Finland?

Mr. Colman.—Yes.

President.—So far as you are aware. Have any new companies for the manufacture of ply wood started?

Mr. Colman.—If they had been started I should not be aware of it.

President.—Has any new company importing any new kind of boxes come into the Indian market?

Mr. Colman.—I do not think so. We are making a cheaper kind of box and call it 'Tiger'. All people may not know that this is Venesta Company's production, but I think a new company has been floated who are importing what they call 'Spartan'.

President.—Apart from the increase of output in Finland is there any reason, so far as you are aware, for the intense competition during the last two years? Let me put it this way. If the market for ornamental panels, for ply wood furniture or ply wood boxes, portmanteaus and so on increased very largely, it might be possible for the ply wood companies, if they found a more remunerative market in that direction to place their ply wood for tea chests on the market at a cheaper rate so as to keep up their output?

Mr. Colman.—There is a possibility there. But the fluctuating prosperity of a company would affect its quotation for tea chests. The Venesta Company, for example, suffered severely during the war. They have been recovering since and are now making many things which they never did before.

Ply wood for purposes other than tea chests.

President.—Have you any reason to suppose that the European market for ply wood, other than ply wood for tea chests, has improved in recent years?

Mr. Colman.—I think it has increased. I think people use more ply wood panels than they used before.

President.—It has been alleged before us by manufacturing companies that there is a definite system of dumping going on in connection with tea chests, the object being to eliminate Indian made boxes altogether and what I was trying to ascertain from you is whether there were any other causes which would account for the severe competition and reduction in prices.

Mr. Colman.—I think the Venesta Company's increased prosperity is the cause of the reduction in tea chest prices. The competition lies between the importing firms.

President.—At present the use of panels for furniture and so on in India is comparatively small, is it not?

Mr. Colman.—Yes, but it is one of the Venesta Company's large business items in England. They do a great deal of that for the War Office for aeroplanes and so on and send the surplus material out to us. That business is also increasing in India.

President.—So far as that branch of your business is concerned the Indian manufacturer of ply wood can hardly be said to compete?

Mr. Colman.—I don't think they do: I doubt if they go in for the manufacture of ply boards as ply boards for furniture.

President.—One of the Indian companies makes them, but there has not been the same intense competition in that branch as in tea chests.

Dr. Matthai.—It is supposed to be more skilled work, is it not?

Mr. Colman.—For ply boards all kinds of wood are used.

Dr. Matthai.—The Indian ply wood industry at present makes packing cases in the main. That is about the form of ply wood work which requires the least skill and experience?

Mr. Colman.—That is a type of standard article and therefore once it is standardized it is simple to make.

President.—You supply ply wood for panels I suppose in specialized markets: one customer wants one kind of grain, another kind, so that since woods used for your panels and panels made in India are very different, there would possibly be room for both companies?

Mr. Colman.—I think that is quite possible.

President.—That is to say, even if the panel industry was established on a considerably larger scale in India than it is established at present, the competition with you might not be very intense?

Mr. Colman.—I think not. We can contemplate an increased output of ply wood panels in this country without serious competition with us.

President.—There might be a big market for panels provided the price was cheap?

Dr. Matthai.—As far as ply wood for panelling and furniture is concerned, appearance matters a lot more than in the case of packing cases and it may be that the sort of wood that is available in India at present may not lend itself to making ply board of satisfactory appearance.

President.—Holloek, for instance, would be inferior to birch, would it not?

Mr. Colman.—I do not think that follows.

Import prices.

President.—You have been good enough to give us a list of prices of your boxes, 19×19×24 which is the standard size. You take it up to 1926; that would not be for this season's use but the season before.

Mr. Colman.—Such boxes will probably be used in season 1927 but would be ordered in 1926.

President.—The prices you give in Appendix I are for a later period than the season 1926?

Mr. Colman.—Those are the prices quoted for tea boxes to be used in 1927.

President.—Do they represent prices for the next season?

Mr. Colman.—They represent current prices to-day; they may be altered in two months time or one month's time.

President.—We were told by one of the companies that a further reduction might be anticipated.

Mr. Colman.—I do not, at present, anticipate any reduction in the price of Venesta boxes.

President.—You say in paragraph 3 of your letter "We have to advise that the prices quoted hereafter are nett and that we do not grant discount

or commission". These prices of course are prices which you charge as agents?

Mr. Colman.—Yes, in consultation with our principals.

President.—But if a firm was to import direct from England—I am not sure whether your business arrangements will allow of this—Is there any arrangement by which if a firm orders direct from the Venesta Company in England they are referred back to you?

Mr. Colman.—You can certainly buy boxes direct from Venesta Limited in London. In that case we shall only be asked to supply the linings and may be asked by the importing firm to land, clear and forward them complete with the linings and fittings which we as agents undertake to do.

President.—The price in such a case would be how much?

Mr. Colman.—It would not necessarily be the same as we could quote here. Preferential rates might be granted for a large order.

President.—Supposing a tea garden adopted that course would Venesta Limited in London quote a price which would include your agency charges, landing charges and so on?

Mr. Colman.—No. They would leave the importing firm the option of doing the work themselves or through us.

Mr. Colman.—If an established firm with facilities for handling ocean steamer work were landing their own boxes, then the price would not include any agency charges. We should be instructed to send up the linings according to their requirements.

President.—That is to say if big gardens had their own Head Office in Calcutta, they would do their own agency work.

Mr. Colman.—Very seldom, but it can be done. As a rule we have so much experience of this work that they employ us. We take the boxes out of the steamers, get them together, complete with linings and reship them to anywhere they like.

President.—May I take it that the difference between Ex. Quay and f.o.r./f.o.b. Calcutta given in Appendix I which is approximately As. 2 represents the average agency charge.

Mr. Colman.—It represents the actual sum that we charge if we do the work. The figures are rather difficult to work out. The cost of sirkars and landing charges comes to something like As. 2. We do this business for As. 2. Therefore we offer people boxes either Ex. Quay f.o.r./f.o.b. Calcutta.

President.—This As. 2, what does it represent exactly? Does it represent landing charges, wharfage, etc.?

Mr. Colman.—I have not got the actual details as to how it works out, but I see they have given me particulars of what we can do it for. They quote the landing charges at 4 to 5 pies per chest. That covers putting on the rail or the Indian steamer including the marking with the names of the gardens but excluding the cost of our establishment of sirkars which we maintain. We have not calculated that at all. An all round figure of As. 2 saves the importer a great deal of trouble and he gets the work done by us.

President.—If any one was to import direct for our purposes if we took again 1½ as the total landing charges, would that be correct?

Mr. Colman.—Yes, assuming he had a staff of Indian sirkars. If he is in a position to do this sort of work I think he can do it at a cost of As. 1-6.

President.—The small gardens having no Head Offices in Calcutta, what would they do?

Mr. Colman.—They would employ us as it would pay them.

President.—You were saying that in accordance with the ordinary trade practice, some commission or discount is allowed on very large orders by the Venesta Company. What about your firm?

Mr. Colman.—We do very little of that. We never give any discount. If we give a special price to any one firm who has been dealing with us for many years, we obtain permission from our Head Office. It may not be the same as the circulated price to all and sundry in Calcutta.

President.—In many trades it is really an established practice. In fact I think one of the importing firms from whom we have got a reply stated that they gave 2½ per cent. discount on cash and up to 5 per cent. commission.

Mr. Colman.—We have no fixed rule. There is no discount ever shown in the Venesta Company's books.

President.—But it is quite possible if you get an order for 50,000 chests, you may allow some commission.

Mr. Colman. These things come about owing to *quid pro quo* between firms. One firm will buy boxes from another and the latter may buy something else from the former. Each makes its own arrangement whereby they get a slightly preferential rate. It is often done and such understandings do exist between the Venesta Company and some agents for tea gardens whose boxes are always supplied by the Venesta Company. Venesta Limited give them a rate which is not necessarily the same as the list price. It may be a little more than the list price.

President.—Obviously you might not wish to go into details about the commission. But would it be correct to assume that any commission or arrangement of this sort will probably be on the lines of other Companies?

Mr. Colman.—It would not be a commission. That would be an incorrect word to use. It is not that if you buy boxes from us any "return commission" is paid.

President.—It is a preferential rate.

Mr. Colman.—Preferential rate is the correct term to use.

President.—The amount by which your preferential rate in certain cases falls short of the market rate is generally on the lines adopted in the trade.

Mr. Colman.—It would not be excessive or the reverse. Sometimes it is in favour of the Venesta Company. For instance my own firm as a tea growing firm pays the Venesta Company for its boxes, a rate which is sometimes higher than current list prices. It helps the agency of the Venesta Company.

President.—That is to say your own gardens are paying the market rate whereas another garden whose business you desire to acquire would get a preferential rate.

Mr. Colman.—That may occur.

Managing Agents for tea gardens.

President.—You are Managing Agents for a number of tea gardens.

Mr. Colman.—Yes.

President.—How many?

Mr. Colman.—The number of gardens may not give you any idea. We are Agents for tea gardens producing about 10½ per cent. of the Northern Indian tea.

President.—You are one of the largest firms.

Mr. Colman.—One of the largest and one of the first three tea people in Calcutta.

President.—Generally the prices at which you supply your boxes, do they correspond to the market quotations?

Mr. Colman.—As a rule they do and the point I may explain here is this. To firms dealing with the Venesta Company when they have dealt with them for many years, a certain amount of advantage accrues by the liberal treatment of the Venesta Company in the matter of claims. If a large number of boxes are lost or breakages occur the Venesta Company in the case of old customers will replace them without charge. It is not done to a new customer.

President.—I want to try and get some idea as to the market which might be available to the Indian manufacturer. So far as your own tea Companies are concerned, it is natural to suppose that whether there was an addition to the import duty or not, you would still continue to use Venesta boxes.

Mr. Colman.—That is correct.

President.—Let me put it in figures. Supposing your market price was Rs. 3-6 or Rs. 3-7-0 per box and the Assam Timber Company price was Rs. 3 per box, and assuming that the Assam Company's box is equal in quality to your box, you would still use your own.

Mr. Colman.—That is a wide margin. We would then endeavour to get Venesta Limited's prices down in the interests of our own gardens. We should have to consider our position as agents to our own gardens rather than the agents of the Venesta Company, but there is a long standing connection which is not broken by a small alteration of two or three annas a box.

President.—So that if the margin in price is about As. 2 or As. 3, you and the other Companies situated in the same position would naturally use your own boxes.

Mr. Colman.—Yes, we feel by the treatment we receive in the trade that it would probably pay us to continue ordering from the Venesta Company at a slightly higher price, because we never make losses in the matter of claims.

President.—There are, I suppose, 4 or 5 other Companies who are very much in the same position as regards imported boxes, are they not?

Mr. Colman.—There is one other Company in a similar position which offers aluminium lined boxes. It is an entirely foreign production. It is not in direct competition with Venesta Limited except when selling a complete box.

President.—Out of the 30 lakhs of boxes required in India excluding those boxes which are supplied by importers of tea chests to the gardens for which they are agents, what would be the balance of the market? Could you give us any idea?

Mr. Colman.—I could not. We do not know each other's figures. I do not know the number of Acme boxes sold here and they do not know the number of our boxes sold here. I can tell you what the Venesta's output of chests has been, but I can't tell you after regular orders from Tea Companies have been executed, how much there is left for other people to buy.

President.—It seems to me that the competition might be very intense for the simple reason that after you have supplied your own gardens and the other people similarly situated like yourself have supplied their own gardens, the actual market available for surplus chests is rather restricted.

Mr. Colman.—It is, but the actual amount of the restriction, I can't tell you.

Dr. Maithai.—At present what proportion of your sales are made outside tea gardens for which you are Managing Agents?

Mr. Colman.—That is the consumption of our own gardens compared to Venesta's total sales. I have not brought our own gardens' consumption here. I can get the figures for you.

Dr. Maithai.—If you could we should be much obliged.

Mr. Colman.—I have no objection whatever. I can tell you the number of boxes my firms' gardens took and how many "Venestas" were sold in any one year, but I haven't got these figures here.

Dr. Matthai.—If you could give us for two or three years, we should be obliged.

Mr. Colman.—I will do so.

Dr. Matthai.—Do you mean by "Venestas" output what they have sold out here?

Mr. Colman.—Yes, I do.

Dr. Matthai.—Have you got the figures?

Mr. Colman.—I haven't got here particulars of the garden's "off-take" of boxes, but I don't mind giving these to you.

Dr. Matthai.—If you could kindly send us a statement, it would be very useful.

Mr. Colman.—I will do so.

President.—We have already mentioned the question of dumping. I don't think I asked you what you as importers think of this representation of the manufacturing firms. Do you think there is anything in it?

Mr. Colman.—Nothing whatever. If we were really thinking of "killing" them, we should not be supplying them with lead linings. Tea won't travel in wooden boxes unless lined with lead. In any case they only make the ply wood panels for tea boxes and we don't object to this small industry. It is the linings to boxes which is the industry's stand by. The mere existence of the ply wood industry without the lining is not of much use.

Rubber chests.

President.—Do you supply boxes for rubber?

Mr. Colman.—Not from here, but the Venesta Company does direct.

President.—Can you give us any idea of the price of those rubber chests?

Mr. Colman.—I cannot. I have never sold rubber chests. We have nothing to do with them. They all go direct to Colombo and the other rubber producing centres.

Future prices of tea chests.

President.—Could you give us any information as to the future course of prices? Is there any possibility of a further drop in prices? I believe the pre-war price was something below Rs. 3.

Mr. Colman.—Yes. I think it ranged from Rs. 2-8-0 to Rs. 2-12-0. Prices all over the world are going down. I do not know what the Finnish people will do. I hardly fancy that they would produce things cheaper than other countries.

President.—There have been big developments in Finland, have there not?

Mr. Colman.—I think there must have been. It is not a point that I know anything about.

President.—We have information that the output of the ply wood mills has increased perhaps three or four times.

Mr. Colman.—I believe they have.

President.—Some of them now produce 9,000 tons of ply wood a year, very nearly three times their former output. Is the output for the last two years as much as they are likely to get in future or are they likely to advance much further beyond that?

Mr. Colman.—I could not tell you anything definite about the Venesta Company's outlook in Finland.

President.—The Venesta Company import their ply board from Finland and cut it up to the required sizes.

Mr. Colman.—I think that it comes all ready made. The ply work is done there. The boards come in cut sizes to London.

President.—So that really the Venesta Company re-export and make general arrangements in India for the supply of linings and fittings, is that right?

Mr. Colman.—Yes.

President.—In a way they themselves are an agency firm

Mr. Colman.—They make a lot of spare parts. They make fittings. They collect the wood shooks and put them into boxes for shipment. That work is done in London. I think they are all cut into standard tea chest sizes when they arrive in London.

President.—Practically the Venesta factory is limited to the manufacture of battens.

Mr. Colman.—They do make some ply wood but not, I think, in any large quantities. They make a lot of ornamental ply wood. They can make tea chests; in fact, they have done so since then manufactured boxes experimentally out of similar wood to that which is being used by these mills in India for the manufacture of tea chests.

President.—But? As far as the tea chest industry is concerned.....

Mr. Colman.—They may be more agents than producers.

Dr. Matthai.—They import ply wood as a sort of semi finished product. The making of a tea chest out of imported ply wood is not a particularly difficult bit of work to do.

Mr. Colman.—It is a difficult work. I have not seen such work done here. The secret lies in the cementing.

Dr. Matthai.—Would not the cementing be done in Finland?

Mr. Colman.—It is done there. It is rather a difficult thing to do. It took quite a long time before that kind of work was satisfactorily done here.

President.—I understood you to say that Venesta, Limited, import panels for tea chests already cemented and cut to proper sizes.

Mr. Colman.—That I think so. But I am not prepared to say so definitely because it is not part of my position as agent to know that. I believe it to be the case but I may be quite wrong and I cannot give you detailed information without reference to London.

Dr. Matthai.—If you take the present price of a full size chest as somewhere about Rs. 3-8-0 and the pre-war price as Rs. 2-10-0 or Rs. 2-14-0, do you think that I should be right in suggesting that the bulk of this increase in the present price is due to the linings and fittings rather than ply wood?

Mr. Colman.—The cost of making the ply wood has gone up more than the cost of making linings and fittings.

President.—The cost of ply wood is practically the pre-war price.

Mr. Colman.—It is now more than the pre-war price. It is the price of ply wood that has gone up.

President.—And not the price of fittings and linings?

Mr. Colman.—As we are producing more of these we are able to bring down our costs and consequently we have been able to sell at a lower price during the last three or four years.

President.—Lower than before the war?

Mr. Colman.—I don't think that it is so. But still it is decreasing rather than increasing owing to the rise in output.

Output of lead mill.

President.—What is the output of lead linings from your factory?

Mr. Colman.—The agents for the lead mill are Messrs. Octavius Steel and Company. Actually this question ought to be put to them, but I have sufficient knowledge of the lead mill to be able to state that the output is, about 3,000 tons of lead a year and it takes 100 tons of lead to roll a lakh of sets of linings. If three lakhs of sets of linings were purchased by Messrs. Bird and Company, they would be consuming about 300 tons of lead.

President.—Out of an output of 3,000 tons?

Mr. Colman.—Yes.

President.—For what other purposes is the lead rolled in that factory used?

Mr. Colman.—They roll it into sheets which are entirely used for lining. They make different gauges of lead linings. If required for country made shooks, the linings have to be thicker. Steel's are the people to reply to that question. I don't think they make linings for anything else but tea chests.

President.—The lead sheets must be used in considerable quantities by other people besides the manufacturers of tea chests.

Mr. Colman.—They may make for other industries, but I do not know. I think that the whole of their output is in the making of linings for tea chests. I don't think there is much margin of output left for other industries requirements.

Corner pieces and battens.

Dr. Matthai.—I find in some of Indian tea chests they don't use corner pieces.

Mr. Colman.—Do you mean inside?

Dr. Matthai.—Yes. Generally there are 12 battens in a tea chest.

Mr. Colman.—Yes.

Dr. Matthai.—The point on which I should like your opinion is this. Supposing you don't have these corner pieces, would it materially affect the strength of the box?

Mr. Colman.—It would.

Dr. Matthai.—The handling to which tea chests are subjected is so rough that you would need to have these corner pieces?

Mr. Colman.—If a tea chest was not packed tightly, it could not stand the handling it receives.

President.—Some of the imported chests have not got corner pieces. They only have metal clips.

Mr. Colman.—I believe some of them have metal clips.

President.—Do you consider them strong enough?

Mr. Colman.—We don't. We are also using kiln dried battens. Of course there are some metal corner pieces in the Venesta boxes as well as battens. Here are a number of details set out by the Venesta Company in this pamphlet.

Makes of Venesta chests.

Dr. Matthai.—Sometimes you have two kinds of chests sold by the same company. Take your "Venesta" and "Compolite". One is cheaper than the other.

Mr. Colman.—Yes.

Dr. Matthai.—On what does the difference depend?

Mr. Colman.—It depends on the selected ply wood.

Dr. Matthai.—The difference is not in the lining.

Mr. Colman.—Yes, the linings are also different. The "Compolite" metal is not so stout as the "Venesta" metal. That is a matter of purchasers choice.

Dr. Matthai.—The difference also lies in the kind of ply wood used.

Mr. Colman.—Yes, there is very much of the difference in the ply wood.

President.—Why do gardens buy the superior quality chests?

Mr. Colman.—First of all, the name is famous and tea packed in "Venesta" boxes appeals to the buyer. Some people believe in paying a little extra for the boxes for that reason. Some people think that the best tea must be packed in the best box. Some companies are more prosperous than others and they do not study so much the question of box costs as a new concern would.

President.—Is "Compolite" equally strong?

Mr. Colman.—Yes. At any rate it carries a greater part of our films' tea.

President.—Is there not a system by which the Venesta Company take back used boxes in England at a fixed price?

Mr. Colman.—I think there is. There is a stamp made on the wood reading "if you bring the boxes back, you will get so much per chest". They used to do that but I do not know whether they do it now or not.

President.—My information is that the system does exist.

Mr. Colman.—I have not seen it lately.

President.—What would be the amount of return per box?

Mr. Colman.—That would be small.

President.—I wonder if you could let us have information on that?

Mr. Colman.—I can arrange to obtain it from Venesta Limited, London.

Opium chests.

Dr. Matthai.—These measurements that you give for the opium chests, are they outside or inside measurements?

Mr. Colman.—I can't give you a definite answer. But I think they are outside measurements. I do not know whether Government have a different way of measuring the chests. We have a lot of correspondence with them. Usually such measurements are outside measurements.

Dr. Matthai.—Usually they are outside measurements?

Mr. Colman.—Yes.

Steamer freights.

Dr. Matthai.—As regards Appendix I, where you give the prices, do you think I should be justified in taking the difference between your f.o.b. Calcutta prices and the other prices landed at these various places as the freight?

Mr. Colman.—Yes.

Dr. Matthai.—We were looking up the River Companies' scheduled rates and these rather correspond to the cargo rates.

Mr. Colman.—Do they?

Dr. Matthai.—In most cases they do correspond, if anything, to the cargo rather than the despatch rates. Therefore if I had to consider that question in connection with this enquiry it would be right to take the cargo rate as the basis of freight to these markets.

Mr. Colman.—I am quite sure that they will be one or the other. If any of them agrees with the cargo rate, I believe they will all be cargo rate.

Dr. Matthai.—I took three or four figures.

Mr. Colman.—I think they will all be cargo rate. There is nothing added to these except freight. If you allow me, I will confirm that.

President.—Do you send generally your boxes by cargo service?

Mr. Colman.—Yes.

President.—Would it be correct to say that during the season they are sent by cargo but at the end of the season if a tea garden wanted 200 or 300 boxes, you would send them by despatch service?

Mr. Colman.—Certainly. The shortages or the supplementary orders are sent by despatch service. But for the season we send our boxes some months ahead and we book them by cargo service. That is really the reason why these rates must be cargo rates. The great majority of our boxes go by cargo service.

Dr. Matthai.—If you think that the rates given here are the usual rates, then you need not confirm them.

Mr. Colman.—I feel sure these may be taken as cargo rates.

Messrs. Gladstone, Wyllie and Company, Calcutta.

Letter dated the 6th August 1927.

We have the honour to acknowledge receipt of your letter, dated 28th ultimo, as also the questionnaire relative to the proposed imposition of a protective duty to aid the indigenous tea chest industry.

Our suppliers, Messrs. The Acme Tea Chest Company, Limited, of Glasgow, are one of the largest manufacturers of 3-ply tea chests but the bulk of their business is done direct with the managing agency tea houses of Calcutta.

It would obviously be of little use to the Board if we submitted our sale prices for the chests we are marketing as it must be remembered that the bulk of our sales are to the direct shippers from the Acme Company who for various reasons find themselves temporarily short of supplies.

In other words we merely import on our account, store the goods in our godowns and consequently rent, double handling charges, and interest on the money locked up in the stocks carried, must make our prices higher than those incurred by tea companies who import and despatch direct from jetty to garden.

Permit us to point out that far from exploiting the commanding influence they have in the Tea Chest industry the Acme Company have been steadily reducing their prices through the aid of improved manufacturing methods and a reduction in the prices of the raw materials used, and only last week we, in fact, received a telegram indicating substantial reductions for the new season's supplies. The Acme Company have no wish to have a representative appear on their behalf, as they quite properly feel that the facts of the case can be better placed before the Board by those directly affected by the application—namely the consumers themselves. This aspect has no doubt been forcibly placed before you by the Indian Tea Association, and it only remains for us to add that we feel confident that the Board will readily appreciate the fallacy involved of endeavouring to protect a minor industry to the great detriment of the very vast interests involved in the Tea industry.

Finally we would ask you to bear in mind the aspect of the number of Indian employees in the tea gardens of this country as compared with the few dependent on the success in this country of the Tea Chest industry—an industry which even with a duty of 15 per cent. is compelled to seek further assistance, and must also go abroad to obtain the necessary fittings.

Messrs. James, Finlay and Company, Limited.

Letter dated the 6th August 1927.

We have the honour to acknowledge receipt of your letters Nos. 630 and 644 of 27th and 28th ultimo enclosing a copy of a questionnaire for importers of tea chests and 3-ply boards.

We have given the matter our consideration and, in view of the fact that we only import tea chests for the use of the estates in our agency and have no interest whatsoever in the sale of tea chests in India, no useful purpose would be served by our giving evidence. In the circumstances, kindly note that our representative will not attend on the 17th instant.

Messrs. Carritt Moran and Company, Calcutta.

(1) Letter No. 711, dated 17th August 1927, from the Tariff Board, to Messrs. Carritt Moran and Company, Calcutta.

The Tariff Board understands that when teas of identical quality are sold in chests of the same capacity but of different makes, slightly varying prices are realized according to whether the chests are of a more expensive or a cheaper make. This fact is of interest to the Board in the enquiry now proceeding regarding the manufacture of tea chests in India, and I am, therefore, to ask you if you would kindly inform the Board as to these price differences according as the tea is packed in chests of the following makes:—

Imperial, Regent.
Hercules, Ajax.
Luralda.
Venesta.
Compolite.
Serdang, Spartan.
Indian made, 3-ply chests.

2. I am to add that for the purposes of this enquiry, the Board is taking the 19" x 19" x 24" as the standard size of tea chest.

(2) Letter dated 5th September 1927 from Messrs. Carritt Moran and Company, Calcutta.

With reference to your No. 711, in our opinion there is no difference in the price of tea on account of any specially named package. When teas are offered for sale the actual condition of the packages is advised to the trade and buyers are influenced by this report and also by past experiences of different brands.

Letter dated the 2nd August 1927 from the Secretary, Tariff Board, to the Collectors of Customs, Calcutta, Madras and Chittagong.

I am directed to state that the Tariff Board is about to commence an enquiry into the question whether protection should be granted to the ply wood and tea chest making industry in India and in this connection would be glad if you could kindly supply information on the following points:—

- (1) Are the panels, fittings and linings of tea chests imported separately or packed together in one package?
- (2) What is the present position in regard to the refund of Customs duty on export of tea chests—

- (a) on panels:
- (b) on fittings and linings?

What administrative difficulties are involved in the grant of this refund?

- (3) What administrative difficulties (if any) would be involved in the grant of refund of or exemption from duty on casein, terne plate or other metal fittings and lead or aluminium linings in favour of the Assam Railways and Trading Company and the Assam Saw Mills and Timber Company, should this course appear suitable?

- (4) Is casein imported for use by any other industry except the ply wood and tea chest industry?

2. I am also to state that the Board would be glad if this information could be supplied by the 15th August next, [and if you would kindly depute a representative to give oral evidence in this connection at the Board's office at No. 1, Council House Street, at 10-30 A.M. on the 22nd August.]

[] To Collector of Customs, Calcutta, only.

Collector of Customs, Calcutta.

(1) Letter No. 3165, dated the 9th August 1927.

I have the honour to furnish the following replies to the questions asked in your letter No. 639 of the 27th July 1927:—

- (1) Consignments of tea chests usually consist of packages each of which contains all the materials necessary for a certain number of chests, commonly 10 or 12. I may state, however, that with a view to reclaiming of drawback on the panels separate invoice values are now usually being furnished for these.
- (2) Drawback of customs duty on export of tea chests cannot be granted on fittings and linings as these are not identifiable. It can be granted on panels if these bear characteristic marks at the time of import which are recorded both in the invoices and the bills of entry on which each consignment is cleared. It is possible if the panels are satisfactorily marked and the relative documents are correctly made out, that claims for drawback can be established. It is anticipated, however, that in the early stages at any rate many claims will break down through failure to comply with the exact requirements of the law and consequent failure to establish identification to the satisfaction of the Customs House. Administrative difficulties may also arise from the fact that shipments of tea chests under claim for drawback cannot possibly be examined for identification purposes unless each shipment consists of chests bearing the same marks and belonging to a particular import consignment, or at most to one or two such consignments. It will only be possible to inspect a percentage of the chests and it will not be feasible in the majority of cases to break a stack of chests awaiting shipment. If a consignment is not homogenous in respect of marks it will be impracticable to identify its components for drawback purposes.
- (3) The Board is no doubt aware that it is repugnant to tariff principles to base any exemption on the intention of the importer and not on the nature of the article. There would be no administrative difficulty in exempting fittings made of terne plate or other metal and linings of lead or aluminium which are recognisable as component parts of tea chests, i.e., when they are imported cut to size or shapes suitable for such purposes. Casein would have to be exempted unconditionally.
- (4) Casein used in the manufacture of ply wood is, it is understood, mostly of indigenous origin and is rarely imported. A few importations from New Zealand have however been noticed on behalf of the Imperial Tobacco Company's Cigarette Factory at Monghyr. In general, casein in some form or other is used in many industries, such as paper glazing, leather dressing, soap making, cotton sizing, boot polishes, waterproof cements, polishes, etc., but importations for these industries appear to be rare.

2. I am deputing Mr. A. Raisman, I.C.S., to give oral evidence in this connection at the Board's office on the 22nd August 1927.

(2) Letter dated the 8th August 1927.

With reference to the enclosed pencil notes which you handed to me the other day of points on which the Board would like early information, I give below the answers which I have been able to obtain:—

1. *Import prices of tea chests.*—Import prices have been on the decline since 1925. As an instance, a difference of 3d. may be taken as the decrease

in price from 1926 to 1927, of a tea chest measuring 19"×19"×24". The following are the prices prevalent at present for the various makes and sizes usually imported:—

Make.	Size.	Price.
		s. d.
"Imperial"	20"×20"×24"	4 1
	19"×19"×22"	4 1
	18"×18"×22"	3 4
	21"×21"×24"	4 10
"Lauralda"	18"×18"×20"	3 8
	19"×19"×24"	4 10½
	19"×19"×22"	4 8½
"Hercules"	19"×19"×24"	4 3
Shooks and Battens—		
"Venesta"	19"×19"×24"	2 4 less 5 per cent.
	19"×19"×22"	2 3 "
	16"×16"×20"	1 10 "
	16"×16"×18"	1 9 "
	15"×15"×18"	1 8 "
Fittings—		
"Lauralda"	19"×19"×24"	1 2 less 5 per cent.
	20"×20"×24"	1 3 "
	16"×16"×20"	1 0 "
Linings—		
"Empire" (aluminium)	19"×19"×24"	1 0 less 2½ per cent.
	16"×16"×18"	0 8 "
Lead	18"×18"×20"	0 11 "
	19"×19"×24"	1 3 "

The above are c.i.f. Calcutta prices, on which for the purpose of the assessment to duty, ½ per cent. is added for landing charges to arrive at the landed cost.

2. *Opium chests*.—No importations have been observed at Calcutta.

3. *Freight on tea chests and materials*.—Invariably, quotations and invoices for tea chests are on the c.i.f. value basis; but obviously the freight charges applicable are just the same as in the case of other case cargoes which may be taken as about Sh. 50 per ton of 40 cubic feet, based on the measurements of the package.

4. *Extra staff for drawback*.—We do not anticipate that it will actually be necessary to appoint more staff, although a certain amount of overtime may be involved. It will be paid for by the shippers as is the usual custom.

(3) *Letter dated the 12th August 1927.*

Your D. O. No. 694, dated 11th August. The prices you require are given in the enclosed note.

AVAILABLE PRICES FOR TEA CHESTS AND FITTINGS FOR THE MONTHS OF JANUARY, FEBRUARY AND MARCH 1927.

January 1927.

Imperial tea chests complete—

	s. d.
20"×20"×24"	4 7
19"×19"×22"	4 1
18"×18"×22"	3 11
21"×21"×24"	4 10
18"×18"×20"	3 8

c.i.f. From January to June these prices have not changed.

Shooks and battens—

Venesta—

	s. d.
19"×19"×24"	2 4 less 5% per set c.i.f.
19"×19"×22"	2 3 " " " "
16"×16"×20"	1 10 " " " "

Aluminium Linings—

	s. d.
19"×19"×24"	1 0 less 2½% per set c.i.f.
16"×16"×18"	0 8 " " " "

Panels, battens and fittings, Lauralda—

	s. d.
19"×19"×24"	2 9 per set c.i.f.
18"×18"×20"	2 5 " " "
15"×15"×18"	2 3 " " "

February 1927.

Lauralda Tea chests complete—

	s. d.
19"×19"×24"	4 10½ c.i.f.
19"×19"×22"	4 8½ "
14"×14"×18"	3 4 "

Hercules No. 1—

	s. d.
19"×19"×24"	4 3 c.i.f.

Ply wood boards 19—

	s. d.
16"×16"×20"	1 4½ c.i.f.
19"×19"×22"	1 11 "
19"×19"×24"	2 0½ "

Ajax fittings and linings—

	s. d.
19"×19"×24"	1 3½ c.i.f. per set.
16"×16"×18"	1 1 " "
17"×17"×19"	1 2 " "

March 1927.

Quirk, Barton & Co.—

	s. d.
19"×19"×24", panels	1 11 c.i.f. per set.
15"×15"×15", "	1 1 " "
19"×19"×24", fittings	1 0 " "
15"×15"×15", "	1 0 " "
19"×19"×24", battens	0 5 " "
15"×15"×15", "	0 5 " "

in price from 1926 to 1927, of a tea chest measuring 19"×19"×24". The following are the prices prevalent at present for the various makes and sizes usually imported:—

Make.	Size.	Price.
		s. d.
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	19"×19"×22"	4 1
	18"×18"×22"	3 4
	21"×21"×24"	4 10
"Lauralda"	18"×18"×20"	3 8
	19"×19"×24"	4 10½
"Hercules"	19"×19"×22"	4 8½
	19"×19"×24"	4 3
Shooks and Battens—		
"Venesta"	19"×19"×24"	2 4 less 5 per cent.
	19"×19"×22"	2 3 "
	16"×16"×20"	1 10 "
	16"×16"×18"	1 9 "
	15"×15"×18"	1 8 "
Fittings—		
"Lauralda"	19"×19"×24"	1 2 less 5 per cent.
	20"×20"×24"	1 3 "
	16"×16"×20"	1 0 "
Linings		
"Empire" (aluminium)	19"×19"×24"	1 0 less 2½ per cent.
	16"×16"×18"	0 8 "
Lead	18"×18"×20"	0 11 "
	19"×19"×24"	1 3 "

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Shooks and battens—
Venesta—

19"×19"×24"
19"×19"×22"
16"×16"×20"

Aluminium Linings—

19"×19"×24"
16"×16"×18"

Panels, battens and fittings, Lauralda—

19"×19"×24"	s. d.	
18"×18"×20"	2 9	per set c.i.f.
15"×15"×18"	2 3	" " "

February 1927.

Lauralda Tea chests complete—

19"×19"×24"	s. d.	
19"×19"×22"	4 10½	c.i.f.
14"×14"×18"	3 4	"

Hercules No. 1—

19"×19"×24"	s. d.	
	4 3	c.i.f.

Ply wood boards 19—

16"×16"×20"	s. d.	
19"×19"×22"	1 4½	c.i.f.
19"×19"×24"	1 11	"
19"×19"×24"	2 0½	"

Ajax fittings and linings—

19"×19"×24"	s. d.	
16"×16"×18"	1 3½	c.i.f. per set.
17"×17"×19"	1 1	" "
	1 2	" "

March 1927.

Quirk, Barton & Co.—

19"×19"×24", panels	s. d.	
15"×15"×15", "	1 11	c.i.f. per set.
19"×19"×24", fittings	1 1	" "
15"×15"×15", "	1 0	" "
19"×19"×24", battens	1 0	" "
15"×15"×15", "	0 5	" "

CUSTOMS DEPARTMENT.

B.—ORAL.

Evidence of Mr. A. Raisman, Assistant Collector of Customs Calcutta, recorded at Calcutta on Monday, the 22nd August 1927.

Drawback on tea chests and fittings and on other articles.

President.—With regard to the rebate on tea chests, we understand that no rebate is possible on the fittings and linings or on the battens.

Mr. Raisman.—No, because they can't be identified.

President.—The question of rebate is really confined to the panels.

Mr. Raisman.—Yes.

President.—Are there any cases in which rebate has been granted?

Mr. Raisman.—There has not yet been a case in which drawback has been granted at Calcutta.

President.—No claim has been put in.

Mr. Raisman.—Not as far as I am aware.

President.—What is the view of the Customs Department? Do they consider that rebate can be claimed?

Mr. Raisman.—Our view is that it is possible to mark individual consignments of tea chests at the time of import in such a way that they could reasonably be identified by the Customs at the time of export. For that purpose it must be possible to identify a chest as definitely belonging to a certain consignment imported in a certain ship and cleared on a certain bill of entry.

President.—The identification would mean a considerable expenditure to the importers.

Mr. Raisman.—It means a system of marking of each consignment and it also means that every panel must be marked instead of as in the past the lid only.

President.—For the actual claiming of the rebate would it be necessary for the original importers or the exporters of tea to keep a special staff?

Mr. Raisman.—It will be necessary for them to follow up the history of each of these consignments so that when a drawback is claimed they will be able to put their hands on the import documents. Supposing drawback is being claimed by somebody other than the original importers, there will have to be some connecting link and I should think that might easily make extra staff necessary in the offices of agents such as Begg, Dunlop & Co.

President.—It would mean a considerable amount of correspondence between the importers, the gardens and the actual exporters.

Mr. Raisman.—A certain amount.

Dr. Matthai.—You say in one part of your letter it might mean a certain amount of overtime.

Mr. Raisman.—Yes.

Dr. Matthai.—The cost of that would be borne by the importers.

Mr. Raisman.—It would, because overtime performed at the request of a merchant is not paid for by Government. It has to be paid for by the merchant.

President.—Would it mean any additional expense in the Customs Department?

Mr. Raisman.—I don't think so.

President.—There is the possibility, I suppose, of delay in clearing the panels when imported and the possibility of delay in the export of the tea when the tea is exported in the chests, is there not?

Mr. Raisman.—There is certainly a possibility of delay at the time of export. At the time of import it would be sufficient merely to examine one or two chests and see that they bear the mark which is entered in the invoice and the import bill of entry, but at the time of export it would be necessary to be satisfied that the stack consisted of chests all bearing the same mark. If they did not, it would mean argument and delay. If the claim were not a perfect one, they would not get anything.

President.—That would of course mean additional expense.

Mr. Raisman.—Yes, warehouse rent etc.

President.—There will be interest on the capital tied.

Mr. Raisman.—They might probably miss the ship unless they abandoned the claim. They lose also in that way.

President.—I suppose even with the greatest care taken to ensure that claim for rebate is correct, there would be a certain number of cases which would fail.

Mr. Raisman.—A certain percentage of every kind of drawback falls through for some hitch or other.

Dr. Matthai.—What precisely do you mean by a stack?

Mr. Raisman.—A stack is simply a pile of tea chests awaiting shipment. They would usually be stacked in a definite shape.

Dr. Matthai.—How many tea chests would there be in a stack?

Mr. Raisman.—It depends on the size of the shipment.

Dr. Matthai.—There would be dozens.

Mr. Raisman.—Probably hundreds. Dozens would be a small shipment.

Dr. Matthai.—When you are examining them, what you do is to walk round and look at a few chests.

Mr. Raisman.—Yes. They would have been stacked haphazard. They would not have any opportunity to arrange that only the panels bearing the correct mark could be seen from the outside. If there were any discrepancy in marks, we should break the stack and look at the inside chests. In any case we ought to do so once or twice in a hundred times for safety.

Dr. Matthai.—Supposing for example in one stack you had boxes imported under say half a dozen different consignments.

Mr. Raisman.—We could not deal with them. It would be impracticable. It would then mean counting the number of chests of each different mark instead of merely taking the whole of the quantity of shipment. It would mean, if there were six marks, finding out how many there were of each mark, getting the import documents of each of these consignments and writing off so many chests against each importation. That would be practically impossible.

Dr. Matthai.—For example if I was exporting tea and had a large number of these stacks and even if I produced before you the relevant import entries and all the necessary documentary evidence, I suppose you would say "it is quite impossible for us to look through all these".

Mr. Raisman.—We must deal with each shipment as a separate item.

Dr. Matthai.—But you cannot refuse a person on the score that there is going to be too much work for you.

Mr. Raisman.—We can say that these consignments are not easily identifiable. The drawback chapter begins with the words "when goods are capable of easy identification". We could not call that easy identification. It would be difficult to identify.

President.—Am I correct in thinking that if an agent imported definite consignments for a garden, that particular garden would probably be able to claim a rebate? When an agent imports a certain number of tea chests merely to sell and if he sells 200 here and 200 there, then it would be difficult.

Mr. Raisman.—They will have to have a fairly elaborate arrangement, if they are going to be able to claim drawback in such cases.

President.—With your experience of the rebate system could you frame any sort of estimate as to what this rebate would be worth to the tea trade? May I explain it this way? The duty being 15 per cent. after deducting expenses and cases in which they fail to identify the goods and so on, what nett rebate do you think exporters will be able to secure?

Mr. Raisman.—It is extremely difficult to give you anything, but a very rough idea.

President.—You deduct 1/8th and that would bring it down to about 13 per cent.

Mr. Raisman.—Yes.

President.—Out of the 13 per cent. what would be their nett advantage?

Mr. Raisman.—I think if they saved 7½ per cent. altogether, they would be doing pretty well taking into account expenses and the cases in which it was not worth while putting in a claim or impossible to put in any claim or where the claim could not succeed.

President.—Do you think that they would do well?

Mr. Raisman.—I think they would do pretty well if they saved half the duty.

President.—You are acquainted with the rebate system and you know how it is worked in other cases.

Mr. Raisman.—Yes. I have also seen the difficulties which the Companies have experienced in getting a perfectly simple method of marking put into effect at home by the suppliers. That is one thing on which I base my view.

President.—If Companies arrange that their shipments of panels are such that at any rate on a considerable proportion of the cases they are able to claim the rebate, would there be any administrative difficulty? How would you regard that?

Mr. Raisman.—It must mean more work. It must mean that the Draw-back Officer has got a large new class of cases to deal with. At present the officers in the docks take practically no interest in the shipment of tea chests. They will have to take a good deal of interest in shipments under claim for drawback. It also means of course a certain amount of work to the gazetted staff, correspondence and so on, and argument about disputed claims.

President.—What would be your opinion from the administrative point of view regarding an alternative scheme which has been explained by us to the Companies and the Indian Tea Association, viz., that the import duty on the fittings and linings should be maintained, but that the import duty on the panels should be abolished and in place of that an export duty calculated on the tea content of chests should be imposed, the shipments of tea in Indian chests being exempt from duty? How would that strike you? Would it be easier?

Mr. Raisman.—It would be an excellent solution of the problem from the administrative point of view.

President.—You would have no difficulty in identifying the Indian tea chests.

Mr. Raisman.—I have been examining the question for the last few days and I think it would be exceedingly easy, firstly because the Indian wood is many shades darker and secondly because its grain is so much closer than the imported chests. An officer walking up to a stack ought to be able to say at once whether it was Indian or foreign.

President.—From the administrative point of view that would be a simpler system.

Mr. Raisman.—Much simpler. We should probably want a documentary criterion as well.

President.—Would you want certificates from the manufacturers?

Mr. Raisman.—Yes, and the certificate from the shipper.

President.—And a trade mark on each panel.

Mr. Raisman.—That would help.

President.—Probably there would be no difficulty in arranging that.

Mr. Raisman.—I don't think it would be necessary to have one on each panel, but of course it would simplify matters if in looking at a stack which ever panel you looked at showed the mark.

President.—One difficulty may be put before you which occurs to me in this connection. Supposing such a system is introduced, we will say that 6 lakhs of boxes of tea are shipped to England each year in Indian made boxes. Let us further suppose that the Indian Companies came to an arrangement with one of the tea chest companies in England under which the tea chest company took back those Indian made boxes at a price and then cut down the panels to make smaller boxes for re-export to India, then you might have some difficulty.

Mr. Raisman.—It is interesting. In any case those panels might be entitled to free entry into India under the proviso to section 25 of the Sea Customs Act. Being goods of Indian manufacture they might be admitted without payment of duty if they came back within 3 years after exportation and if ownership were unchanged.

President.—Even now.

Mr. Raisman.—Yes.

Dr. Matthai.—Supposing we put it this way an export duty levied on tea packed in chests made of non-Indian ply wood, then that difficulty would be got over.

Mr. Raisman.—That would not get over the difficulty. You could go on using the same chests more than once in order to earn the differential advantage.

Dr. Matthai.—If for example I export my tea in an Indian box, I don't think it will ever come back.

Mr. Raisman.—I am very doubtful whether it would. It would mean that the chests would have to be very carefully opened at the other end and the tea taken out.

President.—The Venesta Company have a system by which on return of a used chest to the Company in England, a fixed sum is paid. Supposing that system was developed—if these boxes were returned, for example, to the Venesta Company at so much per chest, then the Company might cut down the panels and manufacture the smaller sizes of tea chests and send them to India. There doesn't seem to me any real difficulty in this from our point of view, because if such a system is adopted, it would mean probably that the Indian tea box owing to the demand for this purpose would acquire a slightly higher value than other chests and the value would be reflected probably in the price of their tea in the sales in India or in England. That would mean in effect that their chests would be fetching rather a higher price so that what they lost in market, they might gain in price. Administratively you would not be able to do anything.

Mr. Raisman.—What we could do of course is to keep a note of re-imported Indian tea chests. We could attempt to keep in touch with such importations and if it were held by Government that tea exported in those re-imported chests should not be given the benefit of the differential export duty, we might require a certificate from the shipper. The certificate would run somewhat as follows:—

“Certified that these chests are of Indian manufacture having been purchased from such and such a mill as per invoice attached, and that these have not previously been used for the export of tea.”

President.—There would also be some safeguard if you require a certificate from the manufacturers in India. You know that Companies that

manufacture tea chests would not give a certificate in the case of second-hand chests. If you insisted on that certificate, it would be possible, if it were found necessary, to prevent re-imported Indian chests having the advantage of preferential rebate.

Mr. Raisman.—That is why I suggested a documentary criterion as well as the obvious visual criterion of the wood. If we have a documentary system that would dispose of the difficulty, as I think we should have.

Dr. Matthai.—A little difficulty of this kind might arise. Have you had any experience of rubber chests?

Mr. Raisman.—Personally I have not.

Dr. Matthai.—We are told that the rubber chests are practically of the same dimensions as tea chests, viz., 19×19×24. Suppose for example tea chests are imported for packing rubber, under this system they would come in free, because it would be very difficult to distinguish.

Mr. Raisman.—We must not distinguish, in any case. If it is exactly the same article, we cannot differentiate against it on the ground that it is imported for packing rubber.

Dr. Matthai.—They also escape the export duty, because there is no export duty on rubber. There would be an export duty on tea, so that you might find rubber chests are going to get an advantage out of this which they don't necessarily deserve.

Mr. Raisman.—There is no great harm in a local industry getting its materials free.

Dr. Matthai.—The imported rubber chests would be in a more advantageous position than they are now, because they escape the import duty and escape the export duty.

Mr. Raisman.—It is a fair encouragement to an Indian industry.

Dr. Matthai.—What Indian industry? Do you mean the rubber industry?

Mr. Raisman.—Yes.

President.—On the other hand the rubber chests presumably being the same as tea chests except that they have not got the lining would also be able to obtain the drawback.

Mr. Raisman.—Yes, they would be able to obtain the drawback if they went in for a system of marking.

President.—If therefore they were admitted free, they would be obtaining only a nett advantage of about 2 per cent.

Mr. Raisman.—Yes, that is true.

President.—Going back to the import duty on panels, another point which occurs to me in regard to the difficulties which would present themselves by an import duty is this. Let us suppose that we find that in regard to rubber boxes, opium chests and panels for furniture or houses, the prices of imported articles are such that the Indian industry can compete, obviously in such a case it would be undesirable to burden the consumer with an additional duty for no purpose. Supposing for that reason we wished to exempt such articles from any increase in the import duty—this is on the supposition that we find it necessary to protect the Indian tea chest industry and supposing we maintained the duty of 15 per cent. on ply boards and increased the duty to 25 per cent. on tea chests, it would then be possible for the ply boards to be imported at a lower duty and cut up into the proper sizes and made into tea chests. The Venesta, Limited, have already got a factory out here for making lead linings and fittings and it would not be necessary to make any very great extensions in order to enable them to cut the ply boards into proper sizes. That would present some difficulty in the Customs.

Mr. Raisman.—We could not remedy a situation like that.

President.—You had a similar situation in regard to matches.

Mr. Raisman.—Yes.

President.—That I understand the Customs Department found it utterly impossible to cope with.

Mr. Raisman.—Quite so.

President.—And an amendment of the tariff was found necessary, in order to put a duty on splints.

Mr. Raisman.—Yes.

President.—In this particular case no amendment of the tariff would be desirable because any amendment of the tariff would mean an increased duty on articles which it was not really necessary to protect. Do you think that that is a real difficulty?

Mr. Raisman.—That certainly is a real difficulty. It is a serious objection against subjecting the ply wood panels for tea chests to a higher duty than other kinds of articles out of which such panels could be made. In fact, it would probably mean that the cutting of the panels into sizes would simply be transferred to India to a great extent. There is only this about it that the tea industry seems to like to be very completely spoon fed in the matter of tea chests. I am judging from the fact that they import their chests absolutely completely ready even to the number of nails. All these things are put in a packet and sent, so that even the most ignorant mistri can put them together. Judging from that, they might be prepared to stand a certain amount of loss rather than be put to any more trouble in assembling.

President.—It would give any manufacturer starting out here a very great advantage. If he were to import ply boards and cut them into proper lengths of tea chests, he would have a very great advantage over the local manufacturer.

Mr. Raisman.—Yes.

President.—It would be almost bound to occur.

Mr. Raisman.—Yes.

Dr. Matthai.—They could do it at Kamarhatti.

Mr. Raisman.—They would cut the panels and make them into the same parcels as they now import.

President.—He might even save a little on packing.

Mr. Raisman.—Yes, that certainly is a serious objection to putting a higher duty on ply wood tea chests.

Dr. Matthai.—If for any reason the legislature or the Government of India thought that the scheme could not be accepted and we had to resort to a higher import duty, then necessarily there must be a suitable amendment to section 42 of the Sea Customs Act. Can you make any suggestion as to the sort of amendment which might be required? We have been looking into this question. It looks to me that the difference between our provision about drawback and the corresponding provision in the United Kingdom is that their drawback arises only where the article has not been used in Great Britain and North Ireland.

Mr. Raisman.—That is logical.

Dr. Matthai.—We make no reference to the use or consumption.

Mr. Raisman.—The only thing of that nature is the provision that the article exported shall not be of less value than the drawback claimed on it, so that it does put a certain limit on the use.

President.—On the other hand in the United Kingdom, an article which comes in as a raw material and is used in the manufacture of another article may earn a drawback.

Dr. Matthai.—For that sort of thing, they would get a drawback.

President.—In India if it has changed in form, it is not able to obtain a drawback.

Mr. Raisman.—Probably the main purpose of the drawback in India is to enable Indian firms to compete in other eastern markets by re-exporting European goods. For instance, a Calcutta firm can quote in Colombo,

Dr. Matthai.—Do you mean the re-export trade?

Mr. Raisman.—Yes, that is the object of that section in India.

President.—In regard to the tea chests if we definitely introduced a clause prohibiting the obtaining of a rebate on re-export, that would be contrary to the purpose of the Act.

Mr. Raisman.—It would be contrary to the general policy as far as one can guess it from the drawback sections.

President.—We are told in Madras Messrs. Parry and Company import tinplates which they make into tins and fill them with sweets and re-export them and they get a rebate on the tinplate so that it might give rise to complications in that way.

Mr. Raisman.—I am surprised that they get a drawback.

Dr. Matthai.—They apparently do get it. On fittings and linings some times they have been able to get a drawback. How they do it, I do not know.

Mr. Raisman.—With regard to the question of how the drawback on tea chests could be made impossible: Section 49 of the Sea Customs Act reads:—

“The Governor General in Council may from time to time, by notification in the Gazette of India,—

(a) declare what goods shall, for the purpose of this Chapter, be deemed to be capable of being easily identified; and.....”

If the Government issued a notification including all the articles on which at present drawback is given but not including tea chests and if that notification started off “The following articles only shall be deemed to be capable of easy identification”, then drawback on tea chests would not be admissible. At present there is no such notification. We use our own discretion as to what is capable of being easily identified.

Dr. Matthai.—That is a course which Government could adopt without amending the Act.

Mr. Raisman.—Yes.

Dr. Matthai.—That could be done under the Act as it stands.

Mr. Raisman.—I think so.

Dr. Matthai.—In that case the drawback is disallowed entirely on the question of difficulty in identification.

Mr. Raisman.—Yes.

President.—You say that in certain cases there would be no difficulty in identification.

Mr. Raisman.—If a fairly elaborate scheme is adopted by the importers, there would not be any insuperable difficulty.

President.—Therefore if the Customs took that view and Government were to issue a notification, it might give rise to considerable dissatisfaction.

Mr. Raisman.—Yes.

Dr. Matthai.—It would be resorting to a legal fiction.

President.—The *bona fides* of the Government might be challenged on a point of that sort.

Mr. Raisman.—Yes, still it might be analogous to a decision as to whether a matter belongs to a reserved or transferred subject in a province. The decision is only called for when a dispute has arisen. It means that arguments are possible on both sides. But the Governor solves the difficulty by declaring that it should be one or the other.

President.—In this case there is no dispute because the Customs Department say “These are the conditions and if you fulfil them, you will get a rebate.”

Mr. Raisman.—So far I have not seen a claim completely established. But I must admit that with a little experience the shippers will probably be able to establish their claims.

Dr. Matthai.—Suppose we wanted to amend the Act in order to enable Government, apart from the question of identification, to disallow drawback in cases like this, is there any general category under which you can bring it?

Mr. Raisman.—By amending the Act?

Dr. Matthai.—I was thinking of it this way. When the tea is packed in India in the chest, the tea chest is consumed or used in India. The use of a tea chest is for packing tea. When the packing is done in India, the consumption has taken place in India and if you say that a drawback is not allowed in cases where the article has been used or consumed in India, then tea chests in which tea is packed for export will not be entitled to a drawback.

Mr. Raisman.—That would require a revision of the whole policy.

Dr. Matthai.—It would raise a big question.

Mr. Raisman.—Yes. Supposing the only object was to find a simple machinery for excluding tea chests from the drawback question, section 49 (b) could be used with a slight alteration. The section runs as follows:—

“The Governor General in Council may from time to time, by notification in the Gazette of India,—

(a).....

(b) prohibit the payment of drawback upon the re-exportation of goods (or any specified goods or class of goods) to any specified foreign port.”

It is only necessary to put ‘or’ before ‘to any specified foreign port’. At present such a notification must include a specification of the foreign port. The object of the second clause at present is that if we don’t feel satisfied about the Customs arrangements of some foreign port—say a Portuguese or French port in India—suppose we feel that the goods exported might leak back into India, then the Government might say that that port would not be regarded as a foreign port for the purpose of drawback.

President.—What was your suggestion?

Mr. Raisman.—My suggestion is the addition of a word ‘or’ before ‘to any foreign port’ in clause (b) of section 49.

President.—All these chests are going to Great Britain.

Mr. Raisman.—What I mean is this. If my suggestion is accepted Government would have two options. They can either exclude a port for drawback purposes (or a particular class of goods going to that port) or a particular class of goods without any reference to any port. At present they must exclude a certain class of goods going to a certain port, whereas with a very slight amendment they can exclude any class of goods going to any foreign port.

Dr. Matthai.—Of course the only point is that the legislature may be rather jealous of giving Government such a wide power. It would however be a neat way of amending the Act.

Mr. Raisman.—It would be a simple method.

It would be simpler purely from the legislative point of view but there is a question of principle involved. It is definitely giving Government a power which at present they do not possess. At present they can exclude an article on the ground that it is not easily identified whereas on such an amendment being adopted, they can arbitrarily exclude any class of goods.

President.—Don’t you think that there would be serious objection from the commercial community?

Mr. Raisman.—I don’t think there would, if it can be shewn that the possession of such powers is necessary if the protective policy is to be implemented.

President.—It is more a question of protection.

Mr. Raisman.—Yes.

President.—Would it not be better to put in some clause disallowing rebates on all protected articles.

Mr. Raisman.—That would really be a logical way of tackling it. It is a question which may arise in connection with other protective duties either now or in future.

Dr. Matthai.—Not necessarily, there would be various classes of protected articles upon which we could allow a rebate without injuring the protected industry.

Mr. Raisman.—The present position will always allow India to be used as a depôt for the marketing of foreign goods whereas if the drawback on goods liable to protective duties were generally prohibited it would not pay to use India as a depôt for that kind of thing.

Dr. Matthai.—If there is a protected industry in India which is striving to capture the home market and a considerable amount of protected goods comes in not for use in the country but simply for export, there is no point in disallowing the drawback.

Mr. Raisman.—The importer would always have the option of selling the article in the country.

Dr. Matthai.—If he does not do it and if he can establish identification?

Mr. Raisman.—Yes, then he can re-ship it to another market.

Dr. Matthai.—If it came to amendment of the Act, your solution would be easily the best I think.

President.—It is possible there might be a perfectly legitimate trade in re-export of tea chests. At any rate our present information is that whereas tea chests sell in Calcutta at approximately Rs. 3, they sell at a considerably higher price, allowing for the fact that there is not duty, at Ceylon.

Mr. Raisman.—That may be so.

President.—It might be worth while for a firm in Calcutta to re-export their boxes to Ceylon and get a rebate of the duty. So that if we prevented a rebate in all cases, it would rather be an obstacle to trade, would it not?

Mr. Raisman.—It would produce a certain amount of obstruction to trade which you do not wish at present to impose or which you do not contemplate.

Dr. Matthai.—Is there any other analogous case that you can think of? We were talking about the case of tins in Madras; is there any other analogous case of that kind? What about sugar?

Mr. Raisman.—Sugar is exported in bags but of course the main trade in sugar is inward. There are certain articles which are marketed in containers where the containers are worth a good deal more than the contents, such as a cylinder containing compressed gas. The existing legal position would make that trade impossible. It means that every time the gas came to India and the cylinder went back, they would lose 1/8th of the duty on the cylinder, so by executive instruction, I think the Government of India have allowed those cylinders to be re-imported free of duty after first importation provided that they are always identified at the time of export and import. They bear an identification number. That is really a case where Government has gone further than allowing a drawback. It is really tantamount to allowing a drawback of the total duty at the time of export. It is a case which if anything, strengthens the tea industry's claim to have their boxes imported free.

Dr. Matthai.—That sort of executive instruction is inconsistent with the Act, is it not?

Mr. Raisman.—I think that at the present time the exemption is by a form of executive instruction but I believe it will shortly be brought under section 23 which gives the Governor General in Council power to exempt any

goods imported into or exported from British India from the whole or any part of export or import duty leviable on such goods. Government in such a case could exempt certain containers on which the duty had once been paid from being assessed to duty again on subsequent importation. It is not really a very helpful case, but this is the only kind of case I can think of at the moment.

President.—Is there not a considerable quantity of export of ghee? Is that not sent in tin containers?

Mr. Raisman.—Yes, similar to kerosine tins.

President.—Is a rebate allowed on that?

Mr. Raisman.—Not to my knowledge.

President.—But the case would, I think, be analogous to a certain extent to Parry's sweets, would it not?

Mr. Raisman.—Yes, but I do not admit that that is a legitimate kind of drawback. It may have been allowed as a result of an appeal to the Madras Board of Revenue, who used to be the Chief Customs-authority there. Formerly the local Boards of Revenue were the Chief Customs-authority and they often gave rulings.

President.—But still the ruling is there?

Mr. Raisman.—It may be in force because Government may not have troubled to reverse it. But it is against the plain meaning of the drawback sections of the Act because obviously it is not possible to identify tin-plate which is made up into containers with any particular lot of tin-plate which was previously imported; that is obviously impossible.

Dr. Matthai.—On this question of landing charges that you have arrived at, I suppose in all cases you apply $\frac{1}{2}$ per cent.?

Mr. Raisman.—Yes, except in the case of piece goods.

Dr. Matthai.—In all other cases you simply take $\frac{1}{2}$ per cent. on the c.i.f.?

Mr. Raisman.—Yes. That is based on our experience of the average proportion of port charges here to the value of the consignments imported.

Collector of Customs, Chittagong.

Letter No. 1700, dated the 5th August 1927.

I have the honour to refer to your letter No. 659, dated the 2nd August 1927.

2. The information required is as follows:—

(i) Panels, fittings and linings for tea chests are generally imported packed together in one package, but occasionally these are separately packed.

(ii) It has been agreed to grant drawback of duty on tea chest panels, being the visible parts of made up tea chests, if the marks and numbers stamped on them when imported are sufficient for purposes of identification at the time of shipment out of India. The general conditions to be followed before identification can be regarded as established by this Department will be found in the enclosed copy of the Standing Order of this Custom House on the subject. Fittings and linings not being visible parts of the made up tea chests cannot be identified and hence drawback is inadmissible on these.

Before drawback can be granted it will be necessary for a Customs Officer to examine the numbers, etc., on each panel of a tea chest being exported. This involves a deal of extra trouble for the Department not generally met with in other cases of drawback. There should be no other extraordinary administrative difficulty.

(iii) There should be no administrative difficulty if a general exemption from duty is granted for casein, terne plate or other metal fittings and lead or aluminium linings. But if the exemption is only to be in favour of certain companies it is not impossible that other firms may also import the same goods through the favoured companies. To guard against such a possibility a procedure may have to be introduced involving more work and responsibility for this Department. It is not known on what condition a refund of duty will be granted but any conditional refund is to be deprecated as it will mean much clerical labour for this Department.

(iv) It is not known whether casein is imported for use by any other industry except the ply wood and tea chest industry and there are no records in this Custom House of the importation of this commodity at this port.

Enclosure.

Drawback of duty on Tea Chest Panels.

The following procedure shall be adopted in granting drawback of duty claimed on tea chests—

Payment of duty should be proved and not merely inferred and the tea chest panels must be identified against a particular consignment covered by a particular bill of entry. Drawback will only be paid on panels and veneers being parts of a tea chest which are visible and identifiable. Identification will only be regarded as having been established if the consignments are stamped by the manufacturers with a distinguishing mark such as, say, 27/1 upwards (this signifies the year in respect of which the tea chest panels are being imported and will appear on the bill of entry). In the case of large companies owning a number of factories, for instance, the Consolidated Tea and Lands Company, Limited, the Customs requirements will be satisfied if the imported panels or veneer bears the mark "C. T. and L. Co., Ltd.,"

with a further identifying mark ^{27 (year of import)} 1 (first consignment in that year) Similarly,

ly, in the case of Agency Houses which import their requirements as a whole, and distribute these according to the needs of their different gardens, it will suffice if the initials of the particular agency firm, the year of import, and the number of the consignment in that year be marked clearly on the imported panel or veneer, e.g., B.D. 27/1 and so on according to the number of consignments imported. Unless the panels or veneers imported under one bill

of entry bear a distinctive mark or number not to be found on panels and veneers imported at the same time under another bill of entry identification cannot be said to have been established against that particular bill of entry and importation.

The value of the parts of the tea chest panels or veneers for which drawback of duty is claimed should be shown separately in the invoices covering the consignment at the time of import and the same must be included in the bill of entry. Full particulars of the number, date, etc., of the bill of entry must be furnished and the relative invoices, etc., submitted at the time of shipment. Where more than one invoice relates to a consignment cleared under one bill of entry particulars of the different invoices are required to be shown on the relative bill of entry to facilitate identification.

Identification will be carried out at the Jetties at the time of shipment and it will be necessary for the whole consignment to be tendered on export for inspection by the officer supervising the particular shipment. Different lots should not be mixed but tendered separately for inspection. In the case of goods imported at Calcutta for which drawback of duty is claimed at this port exporters must give at least 3 weeks' notice of the intended shipment in order that the original bill of entry may be obtained from Calcutta.

Collector of Customs, Madras.

Letter dated the 10th August 1927.

I have the honour to acknowledge the receipt of your letter No. 639, dated the 27th July 1927, and to reply as follows:—

Panels, fittings and linings are imported separately as well as packed together in the same case.

2. Drawback is allowed on panels provided that at the time of import each panel bears, in addition to the shipping marks, the indent No. and date for purposes of identification at the time of re-export. It is not the practice to grant drawback on fittings and linings because they cannot be identified at the time of re-export. I understand, however, that drawback has been granted on these articles also in a few instances owing to an oversight.

3. The exemption of the articles mentioned in point 3 of your letter would involve no administrative difficulty provided a proper safeguard is devised to ensure that they will not be used for any purpose other than the manufacture of tea chests, but the grant of drawback would not be possible owing to the difficulty of identifying these articles at the time of re-export.

4. There have been no imports of "Casein" at this port.

Central Board of Revenue, Simla.

Letter dated the 10th August 1927.

I am directed to forward herewith a copy of the correspondence asked for in your letter No. 668, dated the 4th August 1927.

COPY OF LETTER NO. R. O. R. 1797/25/AP., DATED THE 10TH AUGUST 1925, FROM THE CONTROLLER OF CUSTOMS, MADRAS, TO THE SECRETARY, CENTRAL BOARD OF REVENUE.

Drawback-goods which have undergone a process of manufacture in India—tea chests.

I have the honour to state that I have received an enquiry from a local firm representing one of the tea estates, as to whether drawback of duty can be allowed on tea chests imported in sections and re-exported as chests full of tea.

2. I indicated to them that drawback would probably not be admissible owing to the difficulty of identification and also intimated that the fact that the goods underwent to some small extent a process of manufacture in India would render identification more difficult.

3. The firm now point out that the chests are made especially for them and believe that it would be quite feasible to stamp each individual plank batten and lining with a distinguishing mark.

4. Under the orders of the Local Board of Revenue (the then Chief Customs authority) Messrs. Parry & Co. are allowed drawback on tins imported "knocked down" and re-exported full of sweets after having been assembled in India.

5. If the firm are willing to stamp each item with the indent serial number which would enable us to connect any chest with its indent, invoice and bill of entry, I am of the opinion that we can hardly refuse to allow drawback on the grounds of our inability to identify the goods—the value of the nails included in the cost of the consignments would be so small that Government would, I feel sure, waive absolute identification in their case.

6. I may add that I have ascertained from Calcutta that the case has not arisen there but that the Collector agrees with me that drawback might be allowed on the exported tea chests in the circumstances mentioned above.

7. From the all India figures for 1924-25 I see that the value of the tea chests imported in a year is about 93 lakhs so that if drawback is allowed in the case under reference and becomes general to all importers a sum of about 12 lakhs of rupees is involved. Consequently before giving a final reply to the applicants I request the orders of the Board in the matter.

COPY OF LETTER D. Dis. No. 903-Cus./25, DATED THE 23RD SEPTEMBER 1925, FROM THE UNDER SECRETARY TO THE GOVERNMENT OF INDIA, FINANCE DEPARTMENT (CENTRAL REVENUES), TO THE COLLECTOR OF CUSTOMS, MADRAS.

Drawback-goods which have undergone a process of manufacture in India—tea chests.

Your letter No. R. O. R. 1797/25/AP., dated the 10th August 1925.

With reference to the letter quoted above, I am directed to say that if the claim to drawback can be satisfied in accordance with the ordinary provisions of Chapter VI of the Sea Customs Act, it must be admitted. The Government of India are, however, not willing to authorize any special concessions for allowing drawback of duty on tea chests or parts of tea chests that cannot be satisfactorily identified.

The Rivers Steam Navigation Company, Limited, and India General Navigation and Railway Company, Limited.

(1) Letter No. 662, dated the 2nd August 1927, from the Tariff Board to Messrs. the Rivers Steam Navigation Company, Limited, and the India General Navigation and Railway Company, Limited.

I am directed to state that the Tariff Board is about to commence an enquiry into the question of protection for the ply wood and tea chest industry in India and in this connection would be grateful if you would kindly supply a statement showing the current rates of freight by your river steamers charged for the conveyance of tea chests:—

- (a) From Calcutta to the more important centres of discharge in Assam.
(b) From Dibrugarh to the various centres to which the chests manufactured by the Assam Saw Mills and Timber Company, Limited, are shipped.

(2) Letter dated 12th August 1927 from the Rivers Steam Navigation Company, Limited, and India General Navigation and Railway Company, Limited.

We have the honour to send herewith a list of rates for Acme and Venesta Tea chests and Tea shooks from Calcutta to stations serving tea gardens on our Assam service as well as the rates for tea shooks manufactured by the Assam Saw Mills and Timber Company, Limited, from Dibrugarh to stations serving tea gardens on our Assam service.

Enclosure.

List of rates for Acme and Venesta tea chests and tea shooks.

Stations.	FROM CALCUTTA.			FROM DIBRUGARH.	
	Despatch service.	Direct service.		Tea shooks.	
	Acme and Venesta tea chests and tea shooks.	Acme and Venesta tea chests.	Tea shooks.	Despatch service.	Direct service.
	Per md.	Per md.	Per md.	Per md.	Per md.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Dhubri . . .	0 11 8	0 6 3	0 6 3	0 15 2	0 15 2
Amingaon . . .	0 12 10	0 7 3	0 8 5	0 12 5	0 12 5
Gauhati . . .	1 0 3	0 7 3	0 8 5	0 12 3	0 12 3
Kharupatia . . .	0 12 10	0 7 3	0 8 5	0 11 6	0 11 6
Sealmeri . . .	0 12 10	0 7 3	0 8 5	0 11 6	0 11 6
Siliguri . . .	0 12 10	0 7 10	0 9 1	0 10 1	0 10 1
Dhing Road Ghat . . .	0 12 10	0 7 10	0 9 1	0 10 1	0 10 1
Tezpur . . .	0 12 10	0 7 10	0 9 1	0 8 7	0 8 7
Silghat . . .	0 12 10	0 7 10	0 9 1	0 8 2	0 8 2

List of rates for Acme and Venesta tea chests and tea shooks—contd.

Stations.	FROM CALCUTTA.			FROM DIBRUGARH.	
	Despatch service.	Direct service.		Tea shooks.	
	Acme and Venesta tea chests and tea shooks.	Acme and Venesta tea chests.	Tea shooks.	Despatch service.	Direct service.
	Per md.	Per md.	Per md.	Per md.	Per md.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Bishnath . . .	0 13 10	0 8 5	0 9 8	0 7 5	0 7 5
Kathanibarighat . . .	0 13 10	0 8 5	0 9 8	0 6 9	0 6 9
Behalimukh . . .	0 13 10	0 8 5	0 9 8	0 6 9	0 6 9
Gamirighat . . .	0 13 10	0 8 9	0 10 0	0 6 6	0 6 6
Dhahimukh . . .	0 13 10	0 8 9	0 10 0	0 6 1	0 6 1
Subanir-mukh . . .	0 13 10	0 8 9	0 10 0	0 6 1	0 6 1
Nigriting . . .	0 13 10	0 8 9	0 10 0	0 5 2	0 5 2
Kaklamukh . . .	0 14 1	0 9 5	0 10 8	0 4 7	0 4 7
Dikhumukh . . .	0 14 5	0 9 8	0 10 11	0 3 2	0 3 2
Desangmukh . . .	0 15 4	0 10 8	0 11 11	0 3 2	0 3 2
Dehingmukh . . .	0 15 4	0 10 8	0 11 11	0 3 2	0 3 2
Dibrugarh . . .	0 15 4	0 10 8	0 11 11	...	...

(3) Letter No. 703, dated the 15th August 1927, from the Secretary, Tariff Board, to the Rivers Steam Navigation Company, Limited, and the India General Navigation and Railway Company, Limited.

In continuation of my letter No. 622, dated the 2nd August 1927, I am now directed to ask if you would kindly inform the Tariff Board as to the total quantities of tea shipped by your steamers from the Dibrugarh and Tezpur Ghats during the 1925-26 season.

(4) Letter No. 1004, dated the 17th August 1927, from the Rivers Steam Navigation Company, Limited, and India General Navigation and Railway Company, Limited.

With reference to your letter No. 703 of 15th instant, we beg to give below the figures asked for:—

Total Tea Traffic, Season 1925-26.

	Maunds
From Dibrugarh	387,762
From Tezpur	153,077

Chamber of Commerce, Calicut.*Telegram dated 22nd August 1927.*

This Chamber enters strong protest against request of Indian box making concerns for protection. During war these concerns had every opportunity to capture local market but quality of goods prevented expansion of sales since when quality has not materially improved. The suggested protection would penalise tea growers heavily in competition with other producing countries especially considering the heavy taxation already borne by tea in India. This Chamber is further of opinion that the present system of levying import duty on tea chests and making subsequent refund on re-export is cumbersome and wasteful of time of both customs staff and merchants and considers that the import duty should be abolished.

**Cochin Chamber of Commerce.***Telegram dated 12th September 1927.*

Cochin Chamber of Commerce desires associate itself with the protests entered by Calicut Chamber and by United Planters Association against protective duty on ply wood and for reasons stated by them considers present duty should be abolished.

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