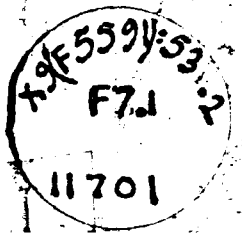


INDIA.
TARIFF BOARD
MATCH INDUSTRY.

Vol. 1



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The representations received by the
Indian Tariff Board in connection
with the Board's enquiry into the
Match making industry in India,
together with the questionnaires
issued and the replies thereto.

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Volume I
—



CALCUTTA: GOVERNMENT OF INDIA
CENTRAL PUBLICATION BRANCH
1928

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Press Communiqué.

In accordance with a Press Communiqué issued in July last, the Indian Tariff Board now publishes the written evidence and part of the oral evidence recorded in connection with the enquiry now proceeding into the Match making industry in India. The evidence consists of two volumes, Volume I containing the representations received by the Indian Tariff Board together with the questionnaire issued and the replies thereto and Volume II containing the oral evidence recorded up to the 24th June, 1927, by the Indian Tariff Board, and can be obtained from the Manager, Government of India Central Publication Branch, Calcutta, or all Provincial Government Book Depôts and authorised booksellers, price Rs. 2 or 3s. 6d. per volume.

C. B. B. CLEE,
Secretary, Tariff Board.

CALCUTTA, }
Dated the 20th January 1928. }

No. 235-T. (14).

GOVERNMENT OF INDIA.

DEPARTMENT OF COMMERCE.

Simla, the 2nd October 1926.

RESOLUTION.

TARIFFS.

The present rate of duty on matches imported from abroad is Re. 1-8-0 per gross, which represents a duty of more than 100 per cent. *ad valorem*. The duty was raised to the above figure purely as a revenue measure, and the Government of India have consistently rejected requests from manufacturers in India that the duty should be declared a protective duty. Nevertheless, a high revenue duty naturally has a protective effect, and since 1922, when the present duty was imposed, numerous match factories have been established in India, some of them using indigenous woods, and others wood imported in the log from abroad. Concurrently, there has been a progressive decline in the customs revenue derived from matches. This revenue amounted to Rs. 154 lakhs in 1922-23 and Rs. 138 lakhs in 1923-24, but in 1925-26 it amounted (inclusive of the revenue from splints and veneers) only to Rs. 118 lakhs. As the Indian factories overcome technical difficulties and attain their full production, the decrease in customs revenue is likely to become more serious.

2. In these circumstances, the Government of India consider that the whole position requires investigation, and they have decided to entrust this task to the Tariff Board. The first point for enquiry is whether the three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are satisfied in the case of the match industry in India, and whether the industry should be protected. If the answer to this question is in the affirmative, the Tariff Board will report at what rate the import duty should be fixed in order to give the industry the protection it requires and whether alternative measures of protection could suitably be adopted. If the answer is in the negative, the Government of India theoretically will be free to lower the import duty on matches in the interests both of the consumer and their own revenue from this source. But the Tariff Board will report to what extent vested interests have been created in India as the result of the present rate of duty, how far those vested interests require consideration and what prospect there is of the match industry in India establishing itself, if the present rate of duty is maintained. If the Tariff Board decides that consideration must be paid to the

industry brought into existence by the present rate of duty and that the duty should be maintained at the present figure, or approximately at the present figure, it will further report whether the loss of customs revenue can be made up in whole or in part by any other appropriate form of taxation of the industry. In this connection, the attention of the Board is drawn to the remarks of the Honourable Commerce Member on the 24th March, 1924, in the Council of State. Generally the Tariff Board will investigate the whole question and make such recommendations as seem germane to the subject.

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 and the Secretary, Tariff Board.

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

G. L. CORBETT,
Secretary to the Government of India.

Press Communiqué issued by the Tariff Board on the 29th November 1926.

In the Resolution of the Government of India in the Commerce Department, No. 235-T. (14), dated the 2nd October 1926, the Indian Tariff Board was directed to investigate the question of granting protection to the Match Industry in India.

2. The Board has been instructed to examine the whole position of the industry but its attention has been specially drawn to the following points. Firstly, whether the three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are satisfied in the case of the Match Industry in India, and whether the industry should be protected. Secondly, if the industry satisfies these conditions and is to be protected, the amount of protection required and the methods by which such protection should be given. Thirdly, if the Board finds that the industry does not satisfy the conditions laid down in the Fiscal Commission's Report, whether it is necessary, in view of any vested interests which may have been created as a result of the present revenue duty, to maintain the duty at the present figure or at approximately the present figure; and if so, whether the loss of customs revenue, which is likely to result from the expansion of the industry in India, can be made up in whole or in part by any other appropriate form of taxation of the industry.

3. Any persons or firms who desire to claim protection for the industry in India or who consider that the present rate of duty *qua* revenue duty should be maintained, are requested to submit to the Tariff Board a full statement of the grounds on which they do so. Persons or firms who claim protection should state *inter alia* the grounds on which the industry can be considered to fulfil the conditions laid down by the Fiscal Commission, and whether any protection which may be found necessary should be given by means of protective duties or in any other form. In the case of those who desire that the present rate of duty should be maintained in view of any vested interests which may have been created, the nature and extent of such interests and their grounds for thinking that the match industry has a fair prospect of establishing itself in India, should be fully set forth.

4. All representations (with six spare copies) must be addressed to the Secretary and reach the office of the Board at No. 1, Council House Street, Calcutta, not later than the 31st December, 1926. After their receipt, the Board will, if necessary, issue questionnaires. The representations, the questionnaires and the replies thereto will then be printed and published, and the opinions, in writing, of those who wish to support or oppose the claims made will be invited. The dates for the oral examination of witnesses who wish to appear before the Board for that purpose will be subsequently fixed.

Mr. M. N. Mehta Factory, Calcutta.

Representation, dated 6th December 1926.

In response to the Press Communiqué issued by you on 29th ultimo, we beg to give you below our reasons as to why the Match Industry in India should be protected.

The Match Industry in India being just in its infancy requires whole-hearted support of the Indian Government by continuing the present protective duty on imported matches for a term of 15 years. In fact for the best development of this new industry, we would suggest the levying of more duty, say, Rs. 3 per gross instead of Re. 1-8. This will surely enable the Match Industry here to stand on its own and to face the keen competition of foreign importation.

We understand that the Government of India are under consideration as to continuing the protective duty or abolishing it. To our opinion if the latter step be taken, then it would mean sheer loss to all parties concerned, who all round India, in the impression of good faith for the development of this industry, have invested considerable sums of money and have wasted their energy. It would mean total ruin staring at them and thus make the demise of the Match Industry here as certain. It will thus of course give great stimulus to the foreign goods from Japan and Sweden at the expense of our industry here. We think our Government to be too benevolent in practice than to adopt ruining methods.

Further, we may mention that the levying of excise duty on the manufacture here at say one anna per gross would be quite adequate to meet the depreciation of the customs duty caused by decrease in imports from foreign countries, chiefly Japan and Sweden.

Our daily output is 1,750 gross which would bring a daily revenue of, say, Rs. 109-6-0 from us, added to this the income derived from other factories will amount to a substantial sum which would be ten times more than that of ours in Calcutta. This would be the best means of placing this trade on a protective duty principle and by so doing we assure you that within the time that is passing, it is feasible and certain that this industry will be able to stand on its own.

Calcutta Match Factory, Calcutta.

Representation, dated 13th December 1926.

With reference to the printed Press Communiqué which was sent to me about the Match Industry in India I beg to send herewith my views on the subject.

Grant of protection to the Match Industry in India.

My humble suggestion is that the Government of India, before issuing instructions to the Indian Tariff Board to investigate the question of granting protection to the Match Industry in India, ought to have asked the Director of Industries of every province to submit to the Tariff Board a statement showing how many match factories have been started in each province and how much capital has been invested in them and to ascertain from them their difficulties and obstacles in producing and selling the products of their respective concerns. In Bengal several factories with large capital have been started and they are handicapped in securing the right sort of wood to develop the industry, because the Forest Department of the Government of

Bengal do not follow a progressive policy to help these concerns. There are plenty of suitable wood available in the Sundarban and other forests as well but the Forest Department will not move in a progressive way and act according to the suggestion of the Director of Industries and help the factories situated in Bengal.

The import duty should be maintained at this present figure as the industries are still in their infancy and will not be able to withstand competition with the imported matches if the duty is fixed at a lower rate and which will consequently make the present concerns to close their factories. The factories have to import paper, chemicals and other ingredients for the manufacture of matches and all these have to bear freight, duty and other trading charges and consequently these factories are paying certain duty to the Government of India in a roundabout way, and the Government could easily have ascertained this from the Custom Authorities.

Any other form of taxation to make up the loss of revenue from the decreased import of matches will have the same effect as ablation of the duty and the industry which is in its infancy will not be able to hold its own against imported matches by paying this new tax. Sweden and Germany were the biggest importers of matches in pre-war days and during that period Japanese matches began to be imported in India and they used to sell them at a lower price than any of the European matches. After the duty has been levied on the imported matches Sweden with the help of American capital and Japan supported by its Government started two match factories in and around Calcutta and I learn that Sweden have started one factory in Assam and another in Bombay and it is their intention to start all over India factories like these and kill the factory started with indigenous capital and who have got no one to help them financially and consequently these are small concerns in comparison with Swedish and Japanese concerns. They are selling matches on credit and allowing even the petty dealers to pay them the price at their convenience and which have handicapped the indigenous concerns good deal. My humble suggestion is that these factories started with foreign capital ought to be taxed on their production so that the indigenous concerns may be saved and the Government will make good the loss which they are suffering.

The Bengal Safety Match Works and Medical House Limited, Rungpur, Bengal.

Representation, dated 25th December 1926.

With reference to the Resolution of the Government of India in the Commerce Department, No. 235-T. (14), dated the 2nd October 1926, remitting the match industry of this country to the Tariff Board for investigation as to whether it is entitled to claim any protection from the Government and in compliance with the Communiqué, dated the 29th November 1926, issued by the Board calling for statements, from persons or firms who desire to claim protection, of the grounds on which they do so, we beg to state as follows:—

From paragraph 97 of the Report of the Indian Fiscal Commission it will appear that an industry before it can claim protection from the Government will have to satisfy the following four conditions, viz.:—

- (1) That no industry, not already established on a commercial scale, be granted any protection.
- (2) That an industry claiming protection should have natural advantages.
- (3) That it be found unable to develop at all, or as rapidly as is thought desirable, without protection.
- (4) That ultimately it should be able to flourish without protection.

It seems to us that an examination of the points mentioned above will solve the question at present at issue in the case of the match industry of this country.

(1) From the statistics in the possession of the Government it will appear that this industry is no longer an "assembling industry." Innumerable persons in the country have taken up this business and quite a large number of limited companies also have established themselves all over the country and are doing excellent business. The low import of splints and veneers and the appreciable loss of customs revenue to the Government which has necessitated this investigation also go to show that the industry has already established itself on a commercial scale and is gradually expanding in volume. Apart from the bigger factories there are a large number of smaller concerns also all over the country which are doing brisk business in this direction and the enormous increase in the value of certain imported materials necessary for the manufacture of matches also lend support to the view that the industry has established itself on a commercial scale.

That the industry is no longer in its primitive stage will also appear from the fact that it has affected the foreign trade in this respect with the result that there has been a strong combination on foot among the foreign capitalists for crushing this indigenous industry. The Swedish Match Company has even gone so far as to start a few companies in this country with the ulterior object of crushing the indigenous concerns. Consequently all these are eloquent of the fact that the industry has already established itself on a decent commercial scale and will gradually expand in volume unless, of course, it be not crushed out of its existence by strong foreign combines of which indications are not already wanting.

(2) The second point that deserves consideration is whether the industry has got natural advantages; on this point, we think, we may refer the Board to the very excellent report submitted by Mr. A. P. Ghose on the investigations into the possibilities of Match Industry in Bengal at the instance of the Department of Industries, Bengal. This report may be treated as an annexure to this representation.

From this report, it will appear that so far as Bengal is concerned natural advantages are not wanting in the case of this industry and that on the whole the match industry in this country has great and bright prospects. Two factors seem to be essentially necessary for these advantages, viz., labour and wood, and fortunately the country abounds in both these respects. Indian labour is proverbially cheap and plentiful and as far as Bengal is concerned it has, in the language of Mr. Ghose, "forests the potentialities of which are great from the point of view of the match industry. It has match wood of fairly good quality and in abundance. The existence, sustenance and growth of the match industry will now very much depend on the Forest Department policy. Special royalty rates, conservation of particular species and forest areas and special facilities and help from the Forest Department are essentially needed."

The climatic conditions of the country also are not unfavourable to the growth of this industry except in those few places where rainfall, moisture, fog and storms are abnormal.

From the above it will be perfectly clear that the industry has got all the natural advantages that are requisite for its growth.

(3) The next point that requires examination is whether the industry in its present stage is unable to develop at all, or as rapidly as is thought desirable without protection.

From what has been stated above in the discussion of the point as to whether the industry has established itself on a commercial scale it will appear that already Swedish manufacturers have combined with American Capitalists to crush this nascent industry and have even gone so far as to start a

number of factories here and thus to monopolise the Match Industry of this country. On this point we beg to refer the Board to the Industrial and Trade Review for Asia, for October, 1925, a copy of which is annexed herewith for favour of the Board's perusal. From the above it will be clear that strong foreign combinations are already on foot to crush this industry which has not attained its full development as yet. Under the circumstances protection from the Government of the country in some shape or other is essentially necessary for the growth of the industry and to prevent it from being crushed out of its existence by these trusts.

It is well known that in the face of powerful foreign combinations it is not possible for an infant industry to grow without protection. Even free England did not hesitate to forge penal laws at the beginning of her cotton industry. The history of the German bounty-fed sugar industry is also not unknown to the members perhaps. Consequently, if in a free country like England or Germany protection plays so important a part in the case of an infant industry it is not difficult to imagine how much more it is necessary in the case of a nascent industry in India which has to maintain its position and to grow against well-established foreign competitions of colossal magnitude like the Swedish-American Trusts referred to above.

From the Industrial and Trade Review for Asia already quoted it will appear that the principal object of the Trust is to kill this indigenous industry by fair means or foul and to monopolise the match trade of the world. Consequently, we beg to submit that all possible precautions ought to be taken by the Government of the country to frustrate this nefarious object of the Trust. We hope we may be permitted to submit that in furtherance of this object for the preservation and growth of an important industry of the country like the present by which thousands of her unemployed middle class are earning their livelihood and will continue to do so as the industry will gradually expand in volume, the Government should grant protection not only by the imposition of adequate fiscal duties on all imported matches but also by refusing permission to bodies like the Swedish-American Trusts for starting their own factories in this country unless three-fourths of the capital of any such company have been subscribed by Indians. We venture to suggest that it is only in this way that the Government can frustrate the unholy object of these Trusts and confer real benefit on the teeming millions of the soil if, of course, it really desires to do so.

(4) The last point that calls for our examination is whether ultimately the industry will be able to flourish without protection.

It is no doubt true that in the case of business everything ought to be looked at from the point of view of pound, shilling and pence inasmuch as Government can't be expected to suffer the loss of its revenue indefinitely. But the present loss of custom duties which has necessitated this reference to the Board is, in our opinion, something more apparent than real inasmuch as the Government has left out of its consideration the increased amount of duties it realises from the gradually increased imports of certain materials that are necessary for the manufacture of matches. If these be taken into account then we hope the deficit of revenue under this head will come down to an appreciable extent. That being so we do not think that any protection that may be ultimately given to this industry will have to be given to it indefinitely or will continue to be of such a magnitude that the Government ought to feel any nervousness for it in view specially of the benefit that it will confer on the children of the soil by this measure. Consequently, if the Government does not hesitate to adopt bold measures for the protection of this industry as suggested above and that only for a few years so that the industry may be able to develop in the meantime by overcoming its initial difficulties there is no reason to suppose that ultimately it will not be able to flourish without protection for the resources even of powerful Trusts are not unlimited and they as business concerns are not surely expected to incur heavy losses year after year in the hope that something will turn up to their advantage in the future. It is well known that Indian capital is exceedingly shy. For

ought we know it is not unlikely that this is one of the reasons why the country has not been studded with indigenous match factories up till now for the products of this industry are required for daily use by the high and the low alike. Consequently, we think we may reasonably hope that if the industry gets breathing time to develop itself capital will flow in more abundantly and Government will be able to more than compensate its present loss by the increased customs duties that it will realise from the enhanced imports of various commodities required for the industry. With the development of the industry the cost of production is also expected to come down and if some concessions be shown to it by the Railway authorities and the Steamer Companies as in the case of the tea industry there is, in our opinion, no reason to think that ultimately it will not be able to flourish without protection like other industries.

From what has been submitted above it is abundantly clear that the possibilities of match industry in this country are great and that its prospects are bright. We have also shown that it satisfies the conditions laid down in the Report of the Indian Fiscal Commission for enabling an industry to claim protection and that the present is eminently a case where protection ought to be granted by the Government.

The next point for consideration, therefore, is as regards the amount of protection required and the methods by which such protection should be given. As to these we beg to suggest that the Government can substantially help the industry in the following ways:—

- (1) By enabling it to obtain match wood from the Government Reserved forests at reduced royalty rates;
- (2) By the conservation of particular species and forest areas and by the grant of special facilities and help in the matter of obtaining match wood from these forests as suggested by Mr. Ghose in his report referred to above;
- (3) By securing concessions on freights from the Railway and Steamer Companies for raw materials and finished products;
- (4) By retaining the duty on all imported matches, splints and veneers at the present figure and by not imposing any tax on the manufactures of concerns financed purely by Indians;
- (5) By granting loans or subsidies in some shape to small industries and cottage industries;
- (6) By reducing the import duties on chemicals and other raw materials necessary for the manufacture of matches;
- (7) By transferring the duty on imported matches, splints and veneers from the schedule of revenue to that of protective duty;
- (8) By not permitting foreign companies like the Swedish Match Company to start factories here unless three-fourths of the capital of any such company have been subscribed by Indians and are in the hands of Indians;
- (9) By the imposition of an excise duty of annas eight per gross of matches on the outturns of factories financed wholly by foreign capital and in the case of factories financed by mixed capital by the imposition of a like duty in proportion to the foreign capital employed.

We hope and trust that if the Government be really desirous of giving an impetus to industries conducted purely by Indians with the aid of Indian labour and capital and to the industrial education and advancement of the people of this country it will not fail to sympathise with them by affording them protection against foreign competitions in the matter of an important industry like the present and thus help them in their attempt at the industrial regeneration of their country.

Enclosure.

(Copy.)

INDUSTRIAL
AND
TRADE REVIEW FOR ASIA.

For promoting Asia's industrial development and foreign trade relations, 1925.
Berlin, October (First Half) No. 19.

THE FOREIGN DANGER TO INDIA'S MATCH INDUSTRY.

The time is rapidly ceasing to be when India was solely a supplier of raw materials to foreign countries and buyer of manufactured articles. The country is being industrialised, and foreign capitalists, whose only Fatherland is the land which provides the best opportunities for lucrative investment, are not slow in casting their greedy eyes upon the unexplored resources and cheap labour of the Indian continent. The problem has now become extremely acute and Indian opinion is rightly concerned about the alarming growth of foreign private and joint stock companies which not only cause a large drain of India's wealth in the form of interest and dividends, but, what is far more serious, tend to transfer the key-industries of India into foreign hands as well as to prevent the growth or prosperity of a number of industries in which India could be self-dependent and self-supporting.

To this latter category belongs the match industry. It was long believed that the Indian match industry was deemed to failure for want of suitable timbers. But during the last few years it has been clearly proved that this is a fiction. India is one of the largest markets in the world for the consumption of matches and she is obliged to import enormous quantities from foreign countries. The most important of those is Sweden; the import from Austria, Hungary, Japan, Norway, Czechoslovakia or Finland is inconsiderable in comparison with Sweden. That country has, therefore, a very strong interest in preventing the growth of the match industry in India, for it would be a severe blow to Sweden's largest export trade if India should succeed in manufacturing matches on a sufficiently large scale to satisfy the demands of the Indian market.

The Swedes have, therefore, decided to start their own factories in India—a fact that has already aroused considerable indignation in national India circles. But the exact manœuvres of the Swedes still seem to be not clearly understood by the large majority of Indians and it will, therefore, be very instructive to them to read the following facts that have been placed at our disposal by a German Match Expert who has recently returned from India after many years' stay there, who has set up match factories for a number of Indian Capitalists and who is sincerely and enthusiastically interested in the development of the match industry in India. He says: "It is well known that India is to-day the best customer for Swedish matches. This is solely due to India being unable to produce her own matches. And this again was and is still due to lack of enterprise and difficulties in obtaining timbers suitable for match manufacture. Lately, however, things have considerably improved. Since over two years the Indian match manufacturer has been protected by an import duty of Re. 1-8 per gross of boxes of matches. As the cost price of good matches made in India is somewhat below Re. 1-8 per gross, it is obvious that a good return for the capital outlay is assured and there is, no doubt, a fair opening for the match industry in India. In fact, some of the Indian businessmen are at present very keen on starting match factories in

India, and lately some well-equipped factories have been started. It is almost certain that, in course of time, India will be able to produce her own matches and then the import of foreign matches, chiefly of Swedish make, will stop automatically. Sweden, or to be quite correct, the Swedish-American Match Combine, is watching this development with keen interest. They have already launched an offensive against the Indian Match Industry on a large scale. They did this in such a cunning way that most of the Indians have been taken unawares. It is worth while to go a little further into the practice of the said combine. Above all one thing is certain, the real aim of the said Match Trust is to monopolise the world's match trade. The means employed by the Trust to attain this end are numerous. According to circumstances they employ fair or foul means. To be just it must be admitted that they employ fair means first. If unsuccessful, they will use foul means unscrupulously. It is impossible within the available space in this paper to depict the various ways and means employed by the Trust. Generally, the practice employed is as follows. After having undersold the matches manufactured in the country for a considerable time (the English call this dumping), they approach the factories with a proposal to buy the whole business. As a rule, the price offered is a decent one. Of course, the owner will be bound over not to do any more business in matches. Very often, after having bought the factory, it will be closed down. Then, of course, the import of matches must commence again. Quite a number of match factories in Europe and elsewhere have come under the influence of the Trust and a great number have been bought by the Trust.

What means is the Trust now employing in India? Before all it must be perfectly understood that the Trust is out for killing the existing match factories in India; in order to attain this end the Trust has started a factory in Ambarath near Bombay and another one in Calcutta. Both these factories are already working and an extensive underselling of Indian made matches has already begun. In addition, factories at Karachi and Madras are in course of construction. Moreover, two existing factories, one in Colombo and the other in Rangoon, have been bought by the Trust. Further, some of the important factories in India have received very favourable offers, fortunately so far without success. They also have opened the Match Manufacturing Supply Company in Bombay. This Company, besides supplying paper and chemicals for match manufacture (mostly of Swedish make) is acting as Agent for Messrs. Gerh. Arehn, Stockholm. The last named firm is supplying match making machinery but lost its independence some time ago, or in the other words it belongs to the Trust. The said supply Company comes as a wolf in sheep's clothing to the Indian businessman. They offer materials cheaper than any Continental or English firm. Indeed, this Company undertakes to equip factories almost for nothing. They offer to take payment after years. Why? Any man with a reasonable amount of business brain will feel sure that there must be a "fly in the ointment" somewhere, or as the Indians say "Kuchh dal men kala hai" and so there is. If, for some reason or other, the payment is not forthcoming after the agreed period, the Trust will take over this factory without much ado and thereby strengthen its position in India more and more. Most of the readers of this paper will say there will be comparatively few Indians who will go into this trap. This is not so. It may be mentioned here that lately the Government of Bihar and Orissa has been trapped in the aforesaid way. There in Patna the Swedish-American Match Combine is erecting a small demonstration factory on behalf of the Government. By allowing that, the Government of Bihar and Orissa has assisted the Swedish Match Trust and has acted against the interests of the country and people. It must be mentioned here, however, that the Government did not know at the time that the Match Manufacturing Supply Company and the Swedish-American Match Combine are identical. Unfortunately, only a few Indians are acquainted with this fact.

During the last year, a few big factories have been started near Bombay by enterprising Indians. These factories import suitable wood in logs from Siberia. Their matches are finding a ready sale. The Swedish factories in Ambarath and Calcutta import wood in logs also. There is no import duty

on wood in logs. Now the Trust is feeling the competition of these factories and in order to get rid of them they urged Government to put a high duty on wood in logs also. They did not do this in a straightforward way but got behind some officials and other influential people. Fortunately the Bombay businessmen are wide-awake and the attempt of the Trust failed. If they had succeeded, the Indian factories besides the Swedish factory near Bombay would have had to close down. As the above-mentioned Indian factories are considerably larger than the Swedish factory, this would only mean that the Trust is getting nearer its real aim, i.e., to govern the world's match trade. The last mentioned move of the Trust was a very clever one and quite a number of Indians were unable to see the real object of the Trust. The Trust is keeping up its propaganda regardless of expenses.

It will be of interest to mention a few items about the Trust. The capital of the Combine is 180 million Swedish Kronan (about 15 crores of rupees). On the Board of Directors are names like Percy A. Rockefeller, Samuel F. Poyer, H. Havenmeyer, John McHugh of the Mechanical-Metal National Bank, F. L. Higginson of the Bank Lee Higginson & Co., New York. Chairman is the Swede, Ivar Kreuger.

There is no doubt that, if the Trust is able to monopolise the World's Match Trade, the consumer will have to suffer. Because after attaining their aim, they will fix the prices at such a level that they will more than recover their former expenditure. Moreover, it is of no interest to Indians if their industries are organised solely with foreign capital.

Let us hope that India will be among the countries where the Trust is unable to secure a footing.

Now this same Mr. Kreuger, the Director of the Swedish Match Company, has been clever enough to publish a review of the world's match industry with the special object of throwing sand into the eyes of the Indian people. After showing how Sweden has been able to overcome the difficulties caused by the War and to compete successfully in the world's market, he says:

"It is easy to understand, however, that if the Swedish match industry is to retain its leading position, it cannot rely only on the Swedish factories, and for this reason the Swedish Match Company decided a few years ago to go in for a programme of taking an interest in match factories abroad on a very large scale. We have now in operation two newly-built factories in India, one in Bombay and one in Calcutta, and we are building two new ones, one in Karachi and one in Madras, and we have acquired two established match factories in Colombo and Rangoon. It is not our intention to try to monopolise the Indian match trade, and we have decided to seek the co-operation of prominent Indians in our Indian undertakings."

We should like these utterances of the Swedish Director to be read in the light of the above statement of the German expert. It is highly important for Indians to know all the facts regarding the methods of the Swedish Match Company, as well as their innocent looking ramifications abroad. It should be known to them that the Norden Export Company of Sweden and the Nord-deutsche Maschinen-Vertriebs Gesellschaft in Berlin are both alleged to have very intimate connections with the Swedish Trust and the main object of these so-called suppliers of match-making machinery is to monopolise India's match trade and make Indian factories impossible except in Swedish hands. We warn all Indians against purchases of machinery on easy terms from suspicious firms, and we advise them to have dealings only with well established German manufacturers of match-making machinery about whom there can be no doubt whatsoever. We shall be happy to supply all intending manufacturers with the names of all the reliable machine firms in Europe and we sincerely trust that Indian capitalists will organise themselves to establish and control match production in India and make it impossible for the Swedish Trust to obtain a footing there,

The Jalpaiguri Industries Limited, Bengal.

Representation, dated 29th December 1926.

With reference to the Press Communiqué, dated the 29th November, 1926, inviting opinions from those who desire to claim protection for the Match Industry in India, we have the honour to make the following representation:—

1. We consider that three conditions laid down in paragraph 97 of the Report of Indian Fiscal Commission are fully satisfied in the case of Match Industry inasmuch as—

(a) The chief raw material for the industry is wood and this India possesses in an abundant supply. Investigations undertaken by Mr. R. S. Troup, Imperial Forest Economist to the Government of India, the results of which were published so far back as 1910, conclusively proves that workable match wood can be obtained in sufficient quantity to run big factories in many parts of India. Coming to Bengal, investigations of Mr. A. P. Ghose at the instance of Local Government also led him to report "that on the whole Match Industry in Bengal has great and bright prospects" (*vide* Bulletin No. 16, page 4, of Department of Industries, Bengal).

(b) *Mechanical Power.*—A match factory on account of the lightness of the machines requires much less power than perhaps any other factory employing equal number of hands. In Calcutta or other big cities affording suitable sites for match factory electric power can be used and in fact is being used with great advantage. In mofussil centres where electric power is not available, the erection of a modern crude oil engine will do; whereas if the factory is installed in the vicinity of forests, a steam engine using wood fuel and wood waste from match machine would serve equally well.

(c) *Labour.*—In most parts of India labour can be obtained at much cheaper rates than in European countries or in Japan. It may be said that Indian labour is unskilled and so is not really cheap; but much stress should not be laid on this point because the works involved in match industry are very simple, and the skill already attained by Indian labour in Calcutta where several big factories are now being run by purely Indian labour are proof positive of the fact that, given average training Indian labour would be quite efficient for running the industry.

(d) *Home Market.*—India is a very big match consuming country. Matches worth more than two crores of rupees were imported in 1921-22 excluding Home production which was all internally consumed. The demand for matches is so steady that in his book "Indian Forest Memoirs" published in 1910 Mr. R. S. Troup opined "if we take the average daily output of a future Indian match factory at seven hundred gross per diem, we find that if India were to manufacture all the matches she now imports, she would require fifty-six fairly large match factories in addition to the few factories already existing" (*vide* Indian Forest Memoirs, page 6). To this statement was added the very significant remark that the foregoing estimate was probably under the mark because it was based on an average consumption of slightly over one match per head of population per diem, as against four to five matches per head in Europe.

(e) The greatest advantage of match industry developed in India is a combination of all the natural advantages previously referred to within one compass; and in this respect India is in a much better position than the two countries which even now are having a lion's share in this particular trade with India, we mean Sweden and Japan. Both these countries have the natural advantages of having a large supply of match wood and efficient labour, but none of these has any large home market. Match industry in both the countries derives sustenance from export trade. So that when the manufactures from these countries reach the Indian consumer many extra charges are heaped on the cost of production, *viz.*, charges of the

foreign export Agent, Indian dealer at the seaport, ocean freight, excise at home and import duty at the consuming country, Railway freight for long journey from the seaport town, cost of zinc-lined packing which is essential for ocean transport, etc. Now, considering her big consumption, if India is divided into a number of centres, and one or more match factory is set up within suitable radius of each such centre, most of the extra charges aforementioned will be eliminated. Thus Indian match factories, administering to only local needs (excluding possible export trade) have enough scope for development.

2. In spite of these possibilities to its favour the match industry, however, at its present state is one which in our opinion is not likely to develop at all without the help of State Protection for a considerable number of years. This will be evident if we trace the history of present state of this industry in India. Match industry has become a practical proposition since the imposition of import duty at Re. 1-8 per gross, i.e., more than 100 per cent., *ad valorem* on all foreign matches. Before that Indian factories—we mean the very few that could at all stay on in the face of foreign competition—were leading a very precarious existence. Many attempts miserably failed, the causes of failure being:—

- (a) want of sufficient capital outlay,
- (b) wrong choice of factory site, wrong selection of machine, difficulty of selecting suitable match wood, want of expert advice, inefficient labour and management, etc.,
- (c) fastidiousness of consumers used to better finish of imported matches, lack of patriotic sentiment to support national industries.

The levying of import duty at the rate of Re 1-8 per gross has virtually given protection to match industry with the result that—

- (d) capital has been forthcoming for the industry,
- (e) experiences gained by past failures have become safe guide for present attempts so that the causes enumerated in (b) are operating to lesser and lesser extent,
- (f) fastidiousness of the consumers has been gradually decreasing by getting used to Indian matches owing to their lower price in comparison with foreign matches; mass national consciousness has been aroused and this will be a great asset to the industry in the long run.

Thus the imposition of this high import duty has afforded to the Indian match industry the much-needed incentive to sustained effort. Indian capital is proverbially shy and the procuring of requisite capital for an up-to-date factory equipped with highly developed labour saving machinery has become extremely difficult if not impossible, especially after the many failures which have attended this line in the past. Indian manufacturers have therefore even now have to take recourse to obsolete methods and cheap but laborious machines, and a considerable amount of hand labour resulting ultimately in a higher cost of production than their foreign competitors. It may be pointed out as a fact that imported brands of Japanese and Swedish matches even paying the import duty at Re. 1-8 per gross are selling at Rs. 2-5 per gross while the best Indian match cannot lower its price below Rs. 2 per gross without causing loss to the manufacturers. If, however, the industry is protected for a further period of ten years, it can be confidently expected from the results already attained that the difficulties now encountered both financial and technical will be gradually overcome and Indian industry will be established on a firm basis. It will then be able to benefit by the exceptional natural advantages to its favour and stand any amount of competition from foreign countries.

3. As regards vested interests that have been created it may be said on a modest calculation that more than twenty lakhs of Indian capital have been invested in Bengal alone, let alone other provinces of India. A new line of industry has opened up to the young and unemployed youths of the

country, and many middle class families are being provided by piece works offered by this industry. India must develop her industries if her sons are to live at all, and from this standpoint alone every effort should be made to establish this industry on a firm basis.

4. There is another aspect of protection, however, which has been urging itself on Indian manufacturers. Swedish and Japanese Trusts have established big factories in many parts of India to avoid the import duty and incidentally to benefit by the protection. This aspect has already become a menace to Indian industry which is yet in an admittedly infant stage. The protection is thus virtually acting to the detriment of the very purpose for which it is intended and far from helping Indian enterprise it is serving the double purpose of depriving the Government of their Customs Revenue and killing Indian industry with the very weapon intended for the latter's defence.

5. We therefore recommend that Indian match industry should be protected in the following manner:—

- (a) The present customs duty on imported matches should be retained.
- (b) Import duty on splints and veneers should be retained at its present level.
- (c) Import duty should be levied on match wood imported as logs in proportion to their splints and veneers manufacturing contents.
- (d) Excise should be levied on all match concerns established in India, financed fully or in part by foreign capital.
- (e) That the duties (a), (b), and (c) should be made protective.

6. It may be contended that protection to match industry would mean higher cost for the consumers and loss of revenue to Government. But this higher price will at best be temporary as we are looking forward to a time when the industry will be able to stand on its own legs and dispense with protection. The loss of revenue due to the falling off of import of matches will be compensated by increased imports of match chemicals and match papers, of machinery and eventually by taxes paid by us. The excise on foreign financed concerns will also bring a substantial revenue.

7. We hope we have established the claims of Indian match industry to be protected. We are firmly of opinion that this industry will be strangled by highly organised competition from Swedish and Japanese Trusts, if no protection is afforded to the industry in the lines we have recommended in paragraph 5. Finally no good can be achieved without sacrifice and any loss or hardship that has to be temporarily borne by the Government or the people may reasonably be regarded as the price that must be paid for a permanent national asset, viz., opening up of a new indigenous industry which will bestow everlasting benefit to our country and its people.

The New Sunderban Match Factory Limited, Calcutta.

Representation, dated 30th December 1926.

With reference to your Press Communiqué, dated 29th November, 1926, regarding the protection of the Match Industry, we beg to submit our views on the subject as follows:—

The three conditions laid down in paragraph 97 of the Report of the

That the three conditions laid down in Indian Fiscal Commission relating to paragraph 97 of the Indian Fiscal Commission industries claiming protection are mission report are satisfied and that the that:—

- (1) The industry must be one possessing natural advantages such as—
 - (a) abundant supply of raw material,
 - (b) cheap power,

- (c) sufficient supply of labour,
 - (d) large home market.
- (2) The industry must be one which without the help of protection either is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country.
- (3) The industry must be one which will eventually be able to face world competition without protection.
- (1) Applying these tests to the Match Industry we find with respect to No. (1), "natural advantages"—

- (a) That in Bengal there are very large supplies of suitable wood in Sunderbans. In Assam there is also an ample supply of suitable wood. In Bihar and Orissa according to the report of the Government Expert there is sufficient suitable wood, and a Government Model Factory has been started in Patna. The United Provinces, we know, abound in the supply of Simul wood. There are large quantities of Bluepine available in the Punjab and we know that even if the timber is secured at market prices it is possible for the industry to develop. Poplar wood is also to be had in the Punjab and though the results with this timber hitherto have not been very satisfactory, yet with the improvement of the growth of these trees it may be expected to prove a very useful raw material obtainable at comparatively more economic rates. Mango wood is also to be had in the Punjab and its utility as a match wood may be said to have added to its importance in this province. In Madras Forests plenty of suitable match timber is available. In Kashmir there is a plentiful supply of suitable Poplar, Spruce, and Willow wood; and recent experiments and examination have shown that in spite of the disadvantages of distance to railhead, it could be possible to work economically with these timbers.
- (b) The question of cheapness of power will vary in different provinces, but it may be observed generally that in the existing conditions the cost of power does not handicap the manufacture of matches. In Western India, Tatas have launched upon a large Electrification Scheme and are supplying power at very cheap rates. In the Punjab the Mendi Hydro-Electric Scheme guarantees power at cheap rates, while in Kashmir, electricity for commercial purposes may be had at under 6 pies per unit. Thus with the electrification which is in progress in different parts of the country, power will be available at cheap rates. Moreover, India is a large coal producing country and Burma abounds in Petroleum.
- (c) As regards the supply of labour, there is no doubt that there is plenty of it in all provinces of India and that the same may be had at low rates. In fact the earning of an Indian is the lowest in the world. Our experience shows that they are quick at picking up technical knowledge. It is evident that the cost on labour forms a very encouraging factor for the Indian Match Industry when compared with the labour costs in other countries, and with the rise of efficiency it will, after a time, form an important factor in enabling Indian Matches to withstand world competition.
- (d) As to market, it is well known that there is a large home market which is at present in the hands of foreign capitalist manufacturers.
- (2) It is abundantly clear from a study of the history of the industrial development of India for the past quarter of a century or so that in spite of various attempts made from time to time the match industry has not been able to develop at all, and it has not been possible for this industry until lately, when the Government of India levied an import duty on foreign manufactured
- The Industry is one which without the help of protection is not likely to develop at all.

matches imported into India, that the indigenous Indian enterpriser received an appreciable measure of encouragement to attempt developing the industry. The reason for this industry not being developed inspite of the fact that India possesses various kinds of timber suited for match manufacture is also apparent. Foreign countries have been masters of this industry and the trade connected therewith for a long time. They possess very large organization, and facilities both natural and commercial. Their financial resources make it possible for them, after their flourishing existence for scores of years, to reduce their working cost and profits to a minimum which though bringing them only a small return on their capital, ensure to them the control over the world market in which India furnishes a very large field. They are in a position to kill a new venture by even foregoing profits for a time or even drawing on their reserve and losing a little. Indian enterpriser in this industry has therefore naturally to combat against very powerful competitors; and it is therefore evident that unless he has some kind of support and protection from Government in its early stages of development, he has little or no chance of being fit to stand up to this keen competition.

It is an admitted fact that the match industry in India has been stimulated by the Re. 1-8 per gross duty; and that prior to this although various independent ventures were made, they did not meet with any success, and the few that survived existed through sheer perseverance. It is instructive to note that up till 1921 although the match industry had been in existence for over a quarter of a century the manufacture from Indian wood hardly reached 1,500 gross per day; and that too of a very inferior quality as compared to the imported matches. Subsequent to the imposition of the duty, the manufacture from Indian wood received a steady impetus, and in 1924-25 the figure of production of matches in India rose to about 5,000 gross per day. Considering that there are certain factories under construction, while many are under contemplation, the industry may be fairly claimed to be a progressive one with the help of the duty, which, although it was given effect to only as a revenue measure, has acted simultaneously as a protective measure for the Indian match industry. It is hardly necessary in the peculiar circumstances of the match industry to prove that without the help of protection the industry is not likely to develop. The unsuccessful ventures prior to the levy of the duty and the successful and progressive work subsequent to it, prove most conclusively that without the requisite protection the indigenous match industry in India cannot develop and must, if left alone, die in a short time.

Appreciable as the effects of the duty were in protecting the growth of the Indian Match Industry, the delay on the part of Government in imposing a special duty on imported match *logs*, inspite of the repeated representations of the indigenous match manufacturers, has not only caused a fall in Government revenue, but has adversely affected the indigenous match manufacture. The duty therefore, although it has acted as a protective measure, has not met the aim and object for its imposition. It has been evaded by the foreign manufacturers by employing clever devices; and consequently the Indian manufacturers who took up the enterprise in right earnest, laying their faith in the protection afforded by the levy of this duty, have had to encounter extreme difficulty and to meet a severe handicap in the actual working of their manufactures.

(3) To enable the indigenous match manufacturer to ultimately stand

The industry promises to be one which foreign competition he must effectively—
should be able eventually to face world
competition without protection.

(a) reduce the cost of production, and

(b) enable his products to compare favourably with foreign imports.

Considering that the first impetus received by the match industry in India was given only in 1922, a good bit of the last four years has gone in preliminary enquiries, erection of factories, and preliminary arrangements incidental to manufacture and marketing. The cost of indigenous manufacture is therefore still comparatively high and the finished product less

attractive to the market. It is premature to gauge the extent to which cost of manufacture can be reduced and the quality of the finished product improved, though we cannot doubt that with economic and careful work results will be appreciable. It will be instructive to study the handicaps which affect the cost of matches manufactured in India from Indian timbers and to show the prospects that may be anticipated.

- (a) Chemicals and paper are at present very largely imported owing to the fact that India is not yet producing the paper nor the chemicals for the manufacture of matches. The chemical industry in India has a future before it and we may reasonably hope that the increasing demands of the match industry during its course of proper development will afford an impetus to the manufacture of superior chemicals in India. With the various attempts that are being made to manufacture paper in India on extensive and economic lines, the match industry may expect a certain economy in this item. The development of chemical industries and paper to an extent as to materially help the match industry is, however, a question of time; but we may assume that these will in due course form material factors in determining a competitive cost of Indian matches for world competition.
- (b) Technical knowledge has to be obtained in the initial stages, at a considerable cost, but with the development of the industry in the country and with training being received by Indians, the expert technical knowledge will be obtainable at a much lower cost. With the experience, which is being gained of Indian conditions as applied to this industry, there is much that can be done to improve and organize the working with a view to economy and efficiency.
- (c) Labour, of which India has more than plentiful, is much cheaper than that available in other countries producing matches. Trained labour is of course essential for efficient and economic working. It is encouraging to note that Indian intelligence receives that training quite quickly.
- (d) The question of inland tariff for raw material and finished products is one which deserves a careful and sympathetic consideration of the Government of India, and is one which is worthy of being taken up by Government in the interests of the Indian industries. Considering that the development of the match industry in the country, apart from transport of finished products, ensures to railways an additional revenue on account of the transportation of all raw materials incidental to manufacture, the railways, by allowing concession freights to encourage the industry, would be helping their own revenue. There could be a material reduction of cost as soon as concession freights can be had, and a decided encouragement to the manufacturer dealing with Indian timber.
- (e) Timber which is of primary importance is abundant in India, and there is plenty that can be suitably employed for match manufacture while most of it at present remains unutilized for want of transport facilities. This is a severe handicap under which the Indian Match enterpriser is labouring at present.

It will be observed that although the question of obtaining timber at present at prices economic enough to withstand world competition is a difficult one, yet the difficulty is not such as to be unsurmountable. There is, however, another important feature connected with the cost of this raw material required for the manufacture of matches. In India the match enterpriser has to purchase it mostly from Government forests and in small quantities from third parties, and in both cases the suppliers of raw material have no direct interest in the development of the industry and consequently no serious effort is made to reduce the cost to a possible minimum.

We believe it should be practicable within a reasonable time to co-ordinate the interests of Government and other timber suppliers with those of the match manufacture to an extent as will ensure—

- (a) the improvement of the growth of suitable species;
- (b) the manipulation of supplies to give timber in its most suitable condition;
- (c) the reduction of extraction costs to a possible minimum.

In view of considerations such as these it will be clear that although the match industry in India has every prospect of being able in course of time to face world competition, it is premature at present to calculate with any precision the time this would take. Much depends upon the progress that can be made in the next five years.

(B)

From a study of the figures given below :—

Year.	Government Revenue in lakhs.	Matches imported in gross.	Matches in terms of daily production gross.	Value in rupees.	Splints. lbs.	Value rupees.	Veneer lbs.	Value rupees.
1921-22	103	13,660,801	45,602	2,03,80,469	...	...	...	...
1922-23	154	11,285,740	37,619	1,61,80,658	...	...	...	...
1923-24	138	11,243,745	37,479	1,45,91,813	..	...	...	...
1924-25	126	7,264,785	24,215	88,88,611	967,305	1,95,413	2,780,063	10,03,935
1925-26	118	7,928,522	26,428	93,45,036	25,521	4,809	1,123,751	3,86,910

we observe that since the duty of Re. 1-8 per gross was levied on matches, the import of finished matches began to fall. The decline of revenue was noticed in the financial year 1923-24 and to counterbalance the decreased revenue the import of splints and veneers in place of the finished matches that accounted for the drop was also taxed. In the year 1924-25 there was a large import of splints and veneer. But in the year 1925-26 a decided fall in the import of splints and veneer was noticeable which undoubtedly indicated an extensive import of match logs.

It is apparent that the first attempt to avoid the import duty consisted in replacing finished matches with splints and veneer, and when the latter were also included in the schedule of special duty, a fresh device was found to evade the duty by the importation of match logs, which has increased by leaps and bounds in the two years 1924-25 and 1925-26. It would be in keeping with the policy adopted by the Government of India in 1924, if they were to impose a special duty on match logs also to safeguard the interests of their revenue.

The fall in Government revenue may be attributed to—

- (1) the growth of the match industry based on Indian timber,
- (2) evasion of the duty by importation of match logs.

The former as a matter of fact, if at all, can account only for a very small portion of the decrease, while the latter is mainly responsible. If a special duty had been levied as was suggested at the time by the indigenous manufacturers Government would have been saved, we venture to observe, the loss of revenue. We therefore strongly urge the expediency of taxing imported match logs further, in addition to the existing *ad valorem* duty.

Another reason for the fall in Revenue is the suspected abuse of the right of transshipment of Native States. Matches are being imported to some of the Native States through their ports in a much larger quantity than the actual demand of those States and the excess quantities are sent to towns in British Territory a long way off from those States avoiding the customs duty legitimately due to the British Government.

(C)

(a) Considerable capital has been sunk in the match industry during the last five years or so. We are alive to the fact that large investments have been made in this direction by the Swedish American Trust who control important match factories in different parts of the world and are therefore keenly interested in importing foreign matches into India. They are essentially out in India with a view to avoid the Re. 1-8 duty and to exploit the country to their own advantage. We cannot for a moment conceive that the Government of India will tolerate the idea of exploitation of the country by the foreigners who are anxious in their own interests to kill the prospects of an indigenous Indian industry and are capable of bearing substantial temporary loss to ensure their ultimate gain. It would be a great catastrophe both for the ultimate revenue to Government and for the industrial benefits that could accrue to the people of India. We do not therefore consider that the investments contracted in India by foreign enterprisers, as opposed to the Indian interests, deserve any protective consideration whatsoever. At their best, the foreign investments were a gamble undertaken to ensure the ruination of India's indigenous interests and should therefore be treated as such.

(b) There are however certain Indian firms and individuals who have hitherto developed a business with the use of foreign timber. We however consider that every inducement and facility should be offered to such Indian firms and individuals to employ their enterprise in the interests of Indian timber by which measure a substantial impetus will be afforded to the indigenous industry and a consequential gain to the Forest and Railway Revenue,

and to a large amount of labour that could be employed on works preceding the actual manufacture in a factory.

(c) In addition to the factories already in existence and actually working with the Indian timber there are many fresh ventures either under construction or contemplation. We have no doubt whatsoever that in addition to large investments actually made on these constructions considerable sums of money have been spent by Indian enterprisers on preliminary investigations and enquiries.

(d) There has been a decided gain to the Indian Railway owing to the establishment of match factories using Indian wood. Factories based on imported wood, to thrive, must be located on or near seaports, and hence no freight on carriage of Match Timber, Chemicals, Paper, Fuel, and other imported stores, can normally accrue to the Railways from them. Factories using Indian timber must invariably be situated inland, and thus to ensure the delivery of various materials incidental to manufacture a decided Revenue accrues to the railway. With the growth of factories using indigenous timber the increased railway revenue will become an appreciably vested interest.

(e) With the increase in the requirements of timber there is bound to be an increase in the labour employed on its extraction, and with the propagation of suitable species of match wood and their extraction, the increased employment of labour will be a material factor for consideration. Every endeavour is being made in various quarters to place on the market at economic rates timbers which are suitable for match manufacture. We understand that there are in Northern India extensive plantations of suitable timbers in hand which in the course of 10 to 15 years would, it is hoped, be able to furnish timber of very superior quality to manufacture about 10,000 gross of matches a day. Undertakings of this kind will doubtless follow in quick succession in other provinces if only the Indian enterpriser has the guarantee of protection to see him successfully through the period of experiment and development.

(f) With the fixation of the Re. 1-8 duty in the normal course there should have been a tendency for the market rates to have risen. It is the Indian manufacturer that has ensured a further decrease in the price and has ensured to the consumer the rate of 3 pies per box. He has thus materially safeguarded the interests of the consumer, which can by no means be considered to be a negligible factor in the interests of the country.

(D)

We have discussed in a previous paragraph the difficulty under which the present Indian manufacturer is labouring in selling his goods against those imported or manufactured with imported logs. It will not be out of place to mention here that the actual fall of revenue due to the import duty is not so high as it appears to be. Match manufacture in India has increased the import of Chemicals, Papers, and Wood, etc., and has increased the consumption of wood from Government forests. The increased revenue on these heads considered along with its apparent fall on matches would show the figure much less. We do not consider it would in the circumstances be at all desirable or justifiable, at such a stage, to contemplate the taxation of the indigenous match industry with a view to make up the actual shortage of Government revenue. If our suggestions summarized at the close are agreed to, the Government will not only be safeguarding its own revenue, but very largely protecting the interests of the consumer. In the circumstances we consider that the question of taxing the indigenous industry does not arise.

It is an acknowledged fact that matches are more or less an indispensable necessity of life, and the match industry is of great economic importance, if India is to be self-contained. We are aware that with the expansion of the indigenous industry, there can be no danger of an undue rise in prices, as

competitive conditions within the country will contribute to regulate the minimum price.

In addition to this, there is the important question of India being developed to be self-contained and self-dependent within the Empire. Want for this was prominently felt during the great war, and if on any grounds Great Britain is ever hereafter drawn into war with the match producing countries or there is any disturbance in the waters separating India from the foreign countries manufacturing matches, the condition of India would be pitiable, unless she has developed her indigenous resources and is self-contained. We believe it should be accepted as a principle that where the questions of the economic development of the internal resources of the Empire are concerned, and the conditions for the development of an industry are not unfavourable, the industry should as far as possible be adequately protected. There can be no gainsaying the fact that the indigenous match industry is decidedly one which comes under this category, and consequently any proposal for taxing it would be most detrimental to the interests of the country and the Empire.

The conclusions arrived at may be summed up thus:—

1. That the three conditions laid down in paragraph 97 of the Indian Fiscal Commission Report are satisfied in regard to the match industry and that the industry should be protected.
2. That the customs duty imposed at present on imported, finished matches, splints, and veneers, should be converted into a protective duty on the same scale.
3. That a suitable protective duty should be imposed on imported match logs.
4. That a suitable excise duty of not less than 8 annas per gross should be imposed on the production of factories of which three-fourths of the capital and Directors are not Indian.
5. That any fresh tax levied on the manufacturers using indigenous timber would be ruinous in the interests of the country.
6. That suitable measures should be adopted for increased facilities for Railway and Steamer transport of Indian match wood throughout the country.
7. That the import of foreign matches through Native States by transshipment methods requires very careful examination.

(1) Rajfulbaria Match Factory, (2) The Bhowani Engineering and Trading Company, (3) Bangia Dissa/ai Karjaloy, (4) National Match Factory, (5) Matangi Match Works, (6) Bhowmik's Match Factory, (7) Radheyshyam Match Works, (8) Prasanna Match Factory, (9) The Lucifer Limited, (10) Pioneer Match Factory, (11) Sukul Match Works, (12) Messrs. Bishanath Prosad Mahadev Prosad, (13) The Bhagirathi Match Factory, (14) Karimbhoy Match Manufacturing Company, (15) The Bengal Safety Match Works and Medical House Limited, and (16) The Bengal Match Works, Bengal.

Representations of various dates.

Referring to your Press Communiqué, dated the 29th November 1926, inviting opinions from those who desire to claim protection for the Match Industry in India, I have the honour to submit that the above Communiqué was considered at a Conference of Match Manufacturers, held on the 13th December last, when the following Resolutions, which have already been pub-

lished as an Associated Press Message in the Press, were unanimously passed:—

1. That the present import duty on matches, splints and veneers be retained at its present level.
2. That the above duty be made a protective one.
3. That the excise on matches, manufactured by factories, financed fully or in part by foreign capital,—as suggested by the Indian Match Manufacturers' Association,—is indispensable if the Indian Industry is to survive, several factories having already had to close owing to this foreign competition.

The Conference, moreover, unanimously supported all the Resolutions passed by the Executive Committee of the Indian Match Manufacturers' Association, held on the 7th October last, as also the views expressed by them in their Secretary's letter No. 527, dated the 16th October last, to the Secretary to the Government of India, Department of Commerce.

Dealing categorically with the questions contained in paragraph 3 of your Communiqué, we beg to state as follows:—

First, as to the grounds on which we consider that the present rate of duty should be maintained, we beg to submit that the industry arose only under the protection of this duty. Many attempts were made to establish the industry before the present duty was imposed, but failed. We would point out also that some Japanese matches, even paying this duty, are selling now at about Rs. 2.5 per gross, whereas the first class indigenous product is selling at about Rs. 2 per gross, so that it is apparent how small the margin is.

Secondly, as regards the fulfilment by the industry of the conditions laid down by the Indian Fiscal Commission, we beg to submit that:—

- (a) It has already been established in this country on a commercial scale, as will be seen by comparing the statistics of imports of matches for the last few years.
- (b) There are in this country extensive tracts of land covered by forests containing the essential raw material for this industry, namely, wood, suitable to be used for splints and veneers and these resources are capable of immense development. Labour, moreover, being both cheap and abundant, there are prospects for the expansion of the industry both on factory and on cottage scale.
- (c) The industry requires both a protective duty and a protective excise, as stated in the above Resolution, the former for about ten years.

Thirdly, as regards vested interests that have been created, we believe that it will be found that no less than twenty lakhs of Indian money have been invested in Calcutta alone in match manufacturing and, of course, many times that sum in India as a whole.

Fourthly, as regards the nature of these interests middle-class families of small means have, to a great extent, subscribed this money in the hope of providing employment for some of their members, and training them industrially, whilst getting reasonable interest for their investment, and capitalists have financed undertakings hoping to see an Indian Industry develop. (The number of men earning their livelihood with this small industry cannot be accurately ascertained and we believe that no less than ten thousand people are engaged in it in Calcutta and its suburbs only and many times the sum in India as a whole. As the manufacture of "Bidis" has removed hooliganism to a great extent from big cities such as Calcutta, Delhi, etc., so we believe that the wrapping of match boxes alone may do the same. The Tariff Board may witness it if they be pleased to have a walk through the suburbs of Calcutta such as Ultadanga, Paikpara, etc. Thousands of poor men are earning their bread by doing this part of the business. The match Industry in this country has increased the import of Wood, Paper, Gum, Chlorate of Potash and other commercial chemicals to a huge extent and the import and manu-

facture of machineries also are developing day by day. So the industry embraces various classes of business and the interest is public and wide-spread. In such hard times as these and in such days of unemployment hundreds of young and educated gentlemen at the mere sight of the Revenue Duty devoted themselves to this industry and are earning their poor bread in an honest way though they all know that the industry still rests on uncertain basis. Now if the industry be crushed down; these people both educated and illiterate will be rendered unemployed and unemployment in a well-governed country is not a good sign both for the rulers and the ruled.)*

Fifthly, as regards the grounds for hoping that the industry will develop, we beg to point out that India is a vast country with great regions, far from Railways or even from good roads, and there is every reason for people in such localities to manufacture for themselves articles of universal use, like matches. It may be pointed out also that, as the investigations of the Royal Commission on Agriculture have already emphasised, one of India's great needs is industries in rural districts using materials that are, and could be, easily produced locally.

Finally, we beg to point out that all these possibilities can materialise only if foreign competition in every form is effectively prevented from strangling the Indian industry which is now struggling to establish itself and overcome its technical difficulties which, of course, can be done only gradually. As has been rightly insisted upon by the President of the Indian Match Manufacturers' Association in his Address, delivered at the last Annual meeting, held on the 13th of January, 1926, foreign capitalists are organised in a way that small Indian concerns cannot be, so that the latter are liable to be crushed by the former; as indeed has already happened in the case of many. (The foreigners, both Swedish and Japanese, have long-standing experience and huge capital behind their business and their average rate of sale per gross will remain at the same level with those of the native manufacturers even after paying an Excise Duty; as the Technical difficulties of the latter are still many in their infancy. So the Protective Excise is, we think, the only remedy to remove our difficulties and to establish ourselves in the world of industry.)*

Numerous examples can be given of steps taken by different countries to limit foreign-capitalised activities that threaten to be injurious to the interest of their people.

We beg, in a word, to request that the people of India should be protected in the same way. This was the idea that inspired the Resolutions, mentioned in the beginning of this letter.

In conclusion, we beg to refer to the fact that the loss of revenue, due to the falling off of imports of matches, is compensated by increased imports of materials used for their manufacture, in this country, of machinery, and finally by taxes paid by us. We might point out also that the excise, suggested by us, would be a source of income.

We cannot insist too strongly that it is impossible for this industry to establish itself under modern conditions of world-competition carried, as these Trusts show, by foreigners into the country itself, without this new form of protection against the new form of competition.

The Puri Match Industries Company Limited, Puri, Bihar and Orissa.

Representation, dated 29th December 1926.

In reference to letter No. 16041-42, dated Patna, 20th December 1926, of the Director of Industries, Bihar and Orissa, forwarding us a copy of the Press Communiqué regarding the Match Industry in India, we have the honour to bring to your kind consideration the following among other facts:—

The Match Industries in India, as we have found from our experience of

* Additions made in the representation by the Bengal Match Works,

these five years' certainly satisfies the three conditions mentioned in paragraph 97 of the Report of the Indian Fiscal Commission.

The industry possesses natural advantages; match wood is very abundant in our parts of the country. The Government forest in Balugaon and Chandaka in the District of Puri can supply any amount of match wood, that can be consumed during the year. As a matter of fact, we are using these woods in our factory for the last five years. Mr. A. P. Ghose, the Match Expert, employed by the Government of Bihar and Orissa to investigate into the possibility of successful Match Industry in this province, clearly testifies in his report submitted to the Government, that the Balugaon and Chandaka forests can supply match wood in any quantity and ours is the only Match Factory in the District of Puri.

Mr. Hubback, the Commissioner of the Orissa Division, who kindly paid a visit to our factory, moved the Forest Department for having match wood cultivation in one area and we are gratified to learn that the Forest Department have since begun such cultivation for our purposes. When that is accomplished, the supply of match wood to our factory will be satisfactorily solved.

We now employ one oil engine of 6 H.P. for our purposes of producing 20 gross of matches per diem and this power is even sufficient if the daily output becomes fourfold, as we intend to do very shortly when we get the Frame Emptying and Sawing Machines from Mr. A. Roller & Co., Berlin. This engine consumes only half a tin of crude kerosene oil for working eight hours daily and managed by one of our workers getting Rs. 15 per month. This arrangement is very cheap and it will be cheaper still, when we increase our daily output.

The labour we employ is more than sufficient for our purpose. Although the wages of manual labour has gone on high in recent years, the high caste people such as Brahmin and Karan middle class people are most reluctant and feel it beneath their dignity to serve on high wages. But they are eager to serve in a factory on a low salary varying from Rs. 7 to Rs. 12 a month and we are employing 16 such persons in our factory and many more are available whenever we want them.

We are practically selling all our products in the local markets and some merchants of Cuttack and Balasore are also patronising our factory. We sell our finished matches at Re. 1-8 per gross and this is the lowest rate in the market.

The Government of India was pleased in the year 1910 to enquire into the future prospects of the Match Industry in India and a report was consequently submitted to the Government. That report is bold enough in its recommendations that this industry has a very bright future before it. But as the big foreign match concerns of Sweden and Japan were practically sweeping the Indian market, it was thought desirable in the interest of Indian Match Industry to protect it by imposing heavy import duties. Ours is one of the indigenous match industries that cropped up in consequence of this import duty and is heading its way to success through vicissitudes of its career. In the report above referred to, we find that the prospects of Match Industry are so great, that we can very easily compete with foreigners and can export matches to foreign countries. If Sweden employing Siberian match wood brought from Siberia, a distance of 200 miles, could easily compete in the Indian market, it will be very easy for any Indian firm like ourselves employing local match wood and cheap labour to face world competition and eventually to be able to stand alone if the present protection is given to the industry to grow in the meantime.

We desire to claim protection for the industry in India and we also consider that the present rate of duty *qua* revenue duty should be maintained. We hope, we have satisfactorily shown above that our industry comes under the three conditions mentioned in paragraph 97 of the Fiscal Commission Report.

The Government of India was pleased to impose an import duty which rose to its present expanse on finished imported matches only in order to

protect indigenous Match Industry. The foreign capitalists, finding no way out, wanted to avoid the duty and instead of importing finished matches, imported splints and veneers to India and turned them into finished matches in this country and sold them at a cheap rate. The Government in order to check this method on the part of the foreigners, imposed another duty on the imported splints and veneers. In this way the foreign importation was effectively checked and indigenous match industry got a very fair field before it and many factories cropped up being fortified by the protective duty.

But the foreign capitalists were not idle in the meantime: they were planning altogether a new method by which they can safely avoid the duty and at the same time they can make enormous profit by their trade. They thus employed their capital in establishing various factories in India and thus avoided the duty and made enormous profits, whereas the indigenous firms could not compete with them. Thus the very persons whom the Government wanted to check by the imposition of the protective duty and thereby to facilitate the way for the indigenous match industry, got the better of it at the cost of the firms that employed local capital.

An industry is truly called indigenous that employs indigenous (1) capital, (2) labour and (3) raw material. Judging from this standard the firms that have recently been established in this country with foreign capital by any stress of imagination cannot be called indigenous and our Government is in no way justified to protect them at our expense.

In our humble opinion the match factories that are now working in India can be classed under two distinct heads, *viz.*, those that employ foreign capital and those that employ Indian capital. A statement showing the location of match factories should be made under these two heads and the amount of daily output should also be stated against the name of each such firm. When that is done, the loss to Government revenue now made as a result of the imposition of the protective duty should be made up by taxing those factories that employ foreign capital by rateably distributing the amount of loss among these factories in proportion to their daily output. The factories that are truly indigenous will thus be protected without any loss to the Government revenue and when after some years the indigenous firms grow in strength to face world competition, then, and then only, there will be an occasion for the Government to consider whether the indigenous factories will be taxed.

As a special case, we beg to submit that we began our concern five years ago with a very small capital and produced matches to a very limited extent with a crude machine. Being emboldened by the protective duty and the sympathy that was evinced by the Department of Industries of our province we began to raise our capital by registering our company under the Indian Companies Act, 1913, and floating shares. We also approached the Government of Bihar and Orissa for an aid under the Bihar and Orissa State Aid to Industries Act, 1923, and our Government being fully satisfied by our work and the very fair prospects that lay before us was pleased to grant us State Aid on the hire purchase system and thus supplied us very useful machines from Mr. A. Roller, Berlin, Germany. Seeing our daily output and the interest the Government of the Province took in the matter local rich public subscribed many shares of our company. We built a commodious house for the location of the factory and began to establish our concern on a sound business basis. Many high Government officials such as the Hon'ble Minister, the Accountant General, the Commissioner of the Orissa Division, so kindly and sympathetically visited our factory and were fully satisfied with our working and promised all possible help.

We have already employed Rs. 20,000 in our business and our Government has again promised to supply us some machines from Mr. A. Roller, Berlin, at a cost of Rs. 2,000. The Forest Department has undertaken match wood cultivation from this year and we find no difficulty now to procure local match wood at a very moderate price.

We are now selling our matches at a very cheap rate in the local market. But all this is due to the protective duty so kindly imposed. We have under-

taken this concern only for a protective duty and if this duty is reduced or withdrawn, our concern will be nowhere and we will be quite unable at this stage to face world competition and cannot fulfil our obligations with our Government. We see a very bright future for our industry at no distant date and so we press for the maintenance of the present protective duty at any cost.

Under these considerations, we most respectfully beg to pray that you may be pleased to put our case before your Board for consideration. We are ready to send a representative to you for examination, if that is considered necessary.

Messrs. Adamjee Hajee Dawood and Company, Limited, Rangoon.

Representation, dated 30th December 1926.

With reference to the Resolution of Government of India, Commerce Department, No. 235 T., dated the 2nd October 1926, referring to the Indian Tariff Board the question of protective duty on imported matches and the various aspects of the Match industry of India, we beg to submit our views on the subject as under.

The Government of India communiqué raises three distinctive issues in the reference as covered by paragraph 97 of the report of the Indian Fiscal Commission, which we categorically deal as under.

Firstly, India possessing natural advantages, namely supply of raw material, labour, etc.

As to the raw material we have got definite reason to believe from our own direct experience that both in India and Burma, and the latter particularly, there is an abundance of wood suitable for the manufacture of matches, although it is a fact that so far as our own knowledge is concerned, that particular variety of wood from which splints of attractive colour can be made has not yet been located. We have at the same time every reason to believe that if a proper research work is carried on under the direct control of Government and with an avowed object, it is not impossible to locate a supply of that particular species of wood.

As to the supply of cheap power we have also learnt from our own experience that no difficulty is to be anticipated in this direction. The labour peculiar to this industry at this stage of its development may not be called fully skilled, but there is not the slightest doubt about its being had in abundance and not very expensive at that. During the short period in which factories have been established in India and Burma they have made eminently satisfactory progress towards being qualified as skilled labour and it can safely be hoped and expected that provided the industry is encouraged by the fostering care of the Government, and if it does not perish in its infancy, the labour will in no long time be fully qualified as to skill.

There is no question as to the finding of a home market and this fact will be easily borne out by the statistics of the imports during the three years succeeding in which the duty according to the Government communiqué for the purpose of revenue was levied and that during the three years immediately preceding it. The difference is no doubt due to the perceptible growth of the industry in India during this short period.

As regards the second point laid down by the Indian Fiscal Commission, the only thing we could state is that the industry began to thrive only after the imposition of the import duty on foreign article levied even though it was in the interest of revenue. For a number of years at least such a duty in our opinion is absolutely necessary for the protection of vested interests already created as well as for according encouragement to more enterprises in the same direction. There is not the slightest apprehension about hurting the consumer inasmuch as they are not yet called upon to pay any higher price for the article than what they did prior to the coming in to the market

of the indigenous article nor is there the remotest chance of such a condition arising in the near future. On the contrary, if foreign monopolist succeeds in asserting himself, the chances are that he will make up for the lost opportunities when he has the field to himself, from the consumer.

Coming to the third point of the Indian Fiscal Commission, we are convinced that given the chance of consolidating its interests, the local industry must need thrive after a reasonable period and eventually stand on its own legs without protection and face open competition.

With reference to paragraph 3 of the Press communiqué and in regard to the creation of vested interests we have only to state that ourselves alone have got a block of over Rs. 25 lakhs in that industry and that there are good many other concerns spread all over India and Burma of varying sizes and importance. It will not be difficult to understand that these ventures are the outcome of the imposition of the duty on the foreign article. If, therefore, any revision is contemplated in this duty at this stage, the natural sequence will be the extinction at one blow of all these vested interests which though may not total large amount, yet for the beginning of the industry does certainly represent fairly big capital investments in India. The revision, if any, should in our opinion be for the enhancement of the existing scale of duty rather than reduction.

Three years is but a short time to judge the results of a new industry. We say three years, not ignoring the attempts made prior to the imposition of the duty, because these failed in the face of strong competition by foreign imports and in the absence of any protective tariff at home. The real epoch of the industry therefore begins after the imposition of the duty. It is natural that during this brief period it has had to face many difficulties, particularly those of a technical nature; but we have every reason to hope and believe that in course of time all these difficulties will disappear. We are therefore in a position to state with all the emphasis at our command that it is in the best interest of the establishment of a new industry in the country that no change may be made in the present rates of duty on imported matches, splints and veneers; and that the same may be declared as *protective duty* without attaching great importance to the consideration of the falling off in the revenue.

It is possible to derive some revenue from the import of various materials and chemicals necessary in the manufacture of this article and the revenue also may benefit in the direction of income tax if the industry is allowed to prosper. It should also be borne in mind that this industry provides means of livelihood to several thousand labourers and reduced unemployment even though it may be to an insignificant extent. The loss in revenue may also be made up to a certain extent by the levy of a discriminating excise on the products of factories run or financed solely or partly by foreign capital; but on no account any imposition of taxation of any shape must be thought of at the present stage, at any rate, on factories run purely by Indian enterprise and capital.

We conceive it is the duty of the Government to afford protection to the home industry as against the foreign and to co-operate with the pioneers in every direction by carrying research work and by removing from their path any difficulty that they may be faced with, particularly of raw material and the transport of it and that of the manufactured article. We shall be pleased to furnish the Tariff Board with any further information at our disposal or explaining any point arising out of this communication.

The Amrit Match Factory, Kota, Central Provinces.

Representation, dated 29th, December 1927.

I have read copies of the Resolution of the Government of India in the Commerce Department, No. 235-T. (14), dated the 2nd October 1926, and also

the Press Communiqué issued by the Secretary of the Tariff Board, dated 29th November 1926, and beg to submit my statement regarding the grant of protection to the Match Industry in India as follows:—

The match industry in India was first established about thirty years back but for nearly twenty-five years its position was very critical and by 1920 all those match factories which existed practically closed down. In March 1921, the Government of India imposed a duty of annas 12 per gross, which was raised to Re. 1-8 per gross in March 1922. These duties were imposed as a revenue measure, but naturally an import duty had also protective effect and since then match industry in India developed rapidly, and numerous match factories have been established. A number of people have also taken it up as cottage industry.

The import figures of 1920-21 can be taken as the quantity of normal consumption of matches in India per year. This was the year immediately before the one in which the duty was imposed on matches and the year in which the quantity of matches manufactured in India was the least. In 1920-21 Indian imported nearly 12,150,000 gross of matches. The total maximum quantity of matches manufactured in India in that year would be under 250,000 gross. Thus the total annual consumption of India can be taken at 124 lakhs gross. In 1925-26 India imported nearly 79 lakhs gross. From this figure I estimate that the quantity manufactured in India in 1925-26 might be about 45 lakhs gross.

This development of the match industry had its effect on Government Custom Revenue which fell from Rs. 154 lakhs in 1922-23 to Rs. 118 lakhs in 1925-26. This decrease has drawn the attention of the Government of India and is the immediate cause of reference of match industry to the Tariff Board.

I shall first consider whether the industry requires protection. It has been proved beyond doubt from the report and investigations carried on by the various match experts appointed by the Government and private agencies that the match industry in India possesses great natural advantages in the shape of abundant supply of raw materials. There is a large variety of woods growing in Indian forests which are suitable for the purpose and which are available in large quantities. It requires only a reasonable period of security and a sound forest policy to develop those resources. The power for the manufacture of matches can be generated at a very small cost as the waste wood in the manufacture of matches can be utilized as fuel. Labour in India is plentiful. The fact that India is obliged to import enormous quantities of matches is a proof that she is one of the largest markets for the consumption of matches. This is an industry in which the advantages of large scale production can be achieved, i.e., the increased output would mean increased economy of production. Thus the match industry fulfils all the conditions laid down in paragraphs 97 and 98 of the report of the Indian Fiscal Commission.

If any further proof of the necessity of protecting this industry is needed it will be seen from the fact that before the year 1921 when the first instalment of import duty was levied the match industry in India was in a very bad condition and many of the match industries had closed down. It was only after the imposition of the import duty that it began to show life. Since 1922 numerous match factories have been established and in the year 1925-26, i.e., after the lapse of only three years, India was able to produce 45 lakhs gross or more than 36 per cent. of its total consumption. A period of three years was very short and many of the factories were still under construction and had not started work. If the present duty is maintained I am sure before long India will be able to produce and meet the whole needs of the country and the industry will be able to face world competition.

The match industry has also got other potential value to the country. It will supply the needs of India in matches. It will give employment to about 30,000 persons directly and many more thousands indirectly engaged in allied occupations. It will also create demand for the establishment of other industries such as the production of match paper and chemicals. It will offer a market for inferior forest timbers which are at present bringing no income to the Government, but are only rotting in the forest.

I shall also like to state that some of the foreign countries like Sweden and Japan who formerly supplied the bulk of the demand of India in matches, have a very strong interest in preventing the growth of the match industry in India, for it would be very severe blow to them if Indians succeed in manufacturing matches to satisfy their own market. They, therefore, decided to get behind the Tariff wall created by the imposition of import duty as a revenue measure. They decided to start match factories in India in order to kill Indian match factories in their infancy. They have already set up match factories at Bombay, Calcutta, Colombo, Rangoon, Madras, Karachi and Assam. They have also started selling matches even below their cost price. They are producing a major portion of the matches manufactured in India, which has affected the Indian Government's Customs Revenue. We do not see any reason why the offensive against the Indian Match industry which the foreign people have already launched should be allowed to continue. In case they are allowed to succeed, it will lead not only to the total loss of the Government Customs Revenue from matches, but it will also ruin the real Indian industry, and ultimately the consumer will also suffer, because after attaining their object these foreign combinations will fix the price at such a level that they will more than recover their former expenditure. Thus it will not be in the interest of either the Government revenue, Indian Industry, or the consumer if these Foreign Combinations are allowed to exploit India. It will be a blind policy to encourage them to strangle Indian industry, when they deny equal treatment to Indians in their own country. They do not allow admission to Indians even in their factories in India. Indian match industry at present badly needs protection against these Foreign Combinations. I, therefore, urge that excise duty equal to the import duty on matches should be imposed on all factories financed wholly by foreign people and managed by foreigners, and that in the case of factories financed by mixed capital, the excise duty be in proportion to the foreign capital employed.

At the same time I shall strongly oppose the levy of excise duty on factories financed and managed entirely by Indians. In many places match factories have been started on very small scale. Some people purchase ready made splints and veneers from bigger factories and prepare ready made matches at their homes without any machines. A general excise duty will press more heavily on such small producers than on large ones. The expenses of collection will also be heavy.

A general excise duty will also raise the retail price of Indian matches and will directly affect the consumer and specially the poor class of people. At present all Indian-made matches are sold in the market at one pice per match box, and if excise duty will be imposed the price will be raised to one and half pice per match box. A general excise duty will also directly affect the output of the Indian factories and some of them will even close down. With the decrease of output in India there will be a decrease in the yield of excise revenue to the Government as well. The rules and regulations of the excise department will involve the producer in loss and hindrance of work and will press more heavily on small producers than on big factories. Thus the former will be practically ruined. On these grounds I strongly protest against a general excise duty on all Indian factories, but the imposition of excise duty on Foreign factories in India, for reasons already given, is a necessity.

The matches can be sold in retail only at the rates of two boxes for one pice, one box for one pice, or one box for one and half pice. At present no Indian or Foreign matches can be sold at the rate of two boxes for one pice because this works out below the cost price. All Indian-made matches are being sold at one match box per pice. Hence the reduction of duty on Foreign matches cannot benefit the poor consumer in any way. It will only swell the profits of the middlemen.

Lastly I come to Government revenue. Before the year 1921-22 the Government Customs Revenue from matches was only about Rs. 16 lakhs per year. In the year 1921-22 when a duty of annas 12 per gross was levied it was 104 lakhs. In the year 1922-23 when the duty was raised to Re. 1-8 it was 154 lakhs. The total consumption of matches in India per year is 124 lakhs

grosses. Now even if the whole Indian Match Industry is again killed and the whole requirements of India are met by import, a duty below Re. 1 per gross can never lead to the increase of custom duty above the present figure very much. If the duty is reduced below Re. 1 per gross the custom revenue will be reduced proportionately. In India already many people have invested their capital in match factories, and they are likely to continue to work to some extent. I, therefore, believe that custom revenue from matches cannot be raised by reducing the import duty. The maximum custom revenue from this head can only be kept up by keeping maximum rate of import duty. The loss of revenue due to the increase of Indian match industry will be partly compensated from the increased income to the Government from other sources such as increase of forest revenue, Income-tax, and increased custom revenue on chemicals, papers, etc., imported for the manufacture of matches. As one of the methods for increasing Government Revenue we should suggest the imposition of high custom duty on wood imported for the manufacture of matches. This will encourage the use of wood from Indian forests, in place of foreign wood, and will lead to the increased Government forest income.

The Lakshmi Match Works, Bilaspur, Central Provinces.

Representation, dated 30th December 1926.

With reference to your Press Communiqué, dated 29th November, 1926, regarding the protection of the Match Industry, we beg to submit our views on the subject as follows:—

The three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission relating to industries claiming protection are that:—

- (1) The industry must be one possessing natural advantages such as—
 - (a) abundant supply of raw material,
 - (b) cheap power,
 - (c) sufficient supply of labour,
 - (d) large home market.
 - (2) The industry must be one which without the help of protection either is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country.
 - (3) The industry must be one which will eventually be able to face world competition without protection.
- (1) Applying these tests to the Match Industry we find with respect to No. (1), "natural advantages."
- (a) That in Bengal there are very large supplies of suitable wood in Sunderbans. In Assam there is also an ample supply of suitable wood. In Bihar and Orissa according to the report of the Government Expert there is sufficient suitable wood, and a Government Model Factory has been started in Patna. The United Provinces, we know abound in the supply of Simul wood. There are large quantities of Bluepine available in the Punjab and we know that even if the timber is secured at market prices it is possible for the industry to develop. Poplar wood is also to be had in the Punjab and though the results with this timber hitherto have not been very satisfactory, yet with the improvement of the growth of these trees it may be expected to prove a very useful raw material obtainable at comparatively more economic rates. Mango wood is also to be had in the Punjab and its utility as a match wood may be said to have added to its importance in this province. In Madras Forests plenty of suit-

able match timber is available. In Kashmir there is a plentiful supply of suitable Poplar, Spruce, and Willow wood; and recent experiments and examination have shown that inspite of the disadvantages of distance to rail head, it could be possible to work economically with these timbers.

- (b) The question of cheapness of power will vary in different provinces, but it may be observed generally that in the existing conditions the cost of power does not handicap the manufacture of matches. In Western India, Tatas have launched upon a large Electrification Scheme and are supplying power at very cheap rates. In the Punjab the Mendi Hydro-Electric Scheme guarantees power at cheap rates, while in Kashmir, electricity for commercial purposes may be had at under 6 pies per unit. Thus with the electrification which is in progress in different parts of the country, power will be available at cheap rates. Moreover, India is a large coal producing country and Burma abounds in Petroleum.
- (c) As regards the supply of labour, there is no doubt that there is plenty of it in all provinces of India and that the same may be had at low rates. In fact the earning of an Indian is the lowest in the World. Our experience shows that they are quick at picking up technical knowledge. It is evident that the cost on labour forms a very encouraging factor for the Indian Match Industry when compared with the labour costs in other countries, and with the rise of efficiency it will, after a time form an important factor in enabling Indian Matches to withstand world competition.
- (d) As to market, it is well known that there is a large home market which is at present in the hands of foreign capitalist manufacturers.

- (2) It is abundantly clear from a study of the history of the industrial development of India for the past

The Industry is one which without the help of protection is not likely to develop at all.

quarter of a century or so that inspite of various attempts made from time to time the match industry has not been able to develop at all, and it has not been possible for this industry until lately, when the Government of India levied an import duty on foreign manufactured matches imported in India, that the indigenous Indian enterpriser received an appreciable measure of encouragement to attempt developing the industry. The reason for this industry not being developed inspite of the fact that India possesses various kinds of timber suited for match manufacture is also apparent. Foreign countries have been masters of this industry and the trade connected therewith for a long time. They possess very large organization, and facilities both natural and commercial. Their financial resources make it possible for them, after their flourishing existence for scores of years, to reduce their working cost and profits to a minimum which though bringing them only a small return on their capital, ensure to them the control over the world market in which India furnishes a very large field. They are in a position to kill a new venture by even foregoing profits for a time or even drawing on their reserve and losing a little. Indian enterpriser in this industry has therefore naturally to combat against very powerful competitors; and it is therefore evident that unless he has some kind of support and protection from Government in its early stages of development, he has little or no chance of being fit to stand up to this keen competition.

It is an admitted fact that the match industry in India has been stimulated by the Re. 1-8 per gross duty; and that prior to this although various independent ventures were made, they did not meet with any success, and the few that survived existed through sheer perseverance. It is instructive to note that up till 1921 although the match industry had been in existence for over a quarter of a century the manufacture from Indian wood hardly reached 1,500 gross per day; and that too of a very inferior quality as compared, to the imported matches. Subsequent to the imposition of the duty,

the manufacture from Indian wood received a steady impetus, and in 1924-25 the figure of production of matches in India rose to about 5,000 gross per day. Considering that there are certain factories under construction, while many are under contemplation, the industry may be fairly claimed to be a progressive one with the help of the duty, which, although it was given effect to only as a revenue measure, has acted simultaneously as a protective measure for the Indian match industry. It is hardly necessary in the peculiar circumstances of the match industry to prove that without the help of protection the industry is not likely to develop. The unsuccessful ventures prior to the levy of the duty and the successful and progressive work subsequent to it prove most conclusively that without the requisite protection the indigenous match industry in India cannot develop and must if left alone, die in a short time.

Appreciable as the effects of the duty were in protecting the growth of the Indian Match Industry, the delay on the part of Government in imposing a special duty on imported match *logs*, in spite of the repeated representations of the indigenous match manufacturers, has not only caused a fall in Government revenue, but has adversely affected the indigenous match manufacture. The duty therefore although it has acted as a protective measure, has not met the aim and object for its imposition. It has been evaded by the foreign manufacturers by employing clever devices; and consequently the Indian manufacturers who took up the enterprise in right earnest, laying their faith in the protection afforded by the levy of this duty, have had to encounter extreme difficulty and to meet a severe handicap in the actual working of their manufactures.

(3) To enable the indigenous match manufacturer to ultimately stand foreign competition he must effectively should be able eventually to face world competition without protection.

(a) reduce the cost of production, and

(b) enable his products to compare favourably with foreign imports.

Considering that the first impetus received by the match industry in India was given only in 1922, a good bit of the last four years has gone in preliminary enquiries, erection of factories, and preliminary arrangements incidental to manufacture and marketing. The cost of Indigenous manufacture is therefore still comparatively high and the finished product less attractive to the market. It is premature to gauge the extent to which cost of manufacture can be reduced and the quality of the finished product improved, though we cannot doubt that with economic and careful work results will be appreciable. It will be instructive to study the handicaps which affect the cost of matches manufactured in India from Indian timbers and to show the prospects that may be anticipated.

(a) Chemicals and paper are at present very largely imported owing to the fact that India is not yet producing the paper nor the chemicals for the manufacture of matches. The chemical industry in India has a future before it and we may reasonably hope that the increasing demands of the match industry during its course of proper development will afford an impetus to the manufacture of superior chemicals in India. With the various attempts that are being made to manufacture paper in India on extensive and economic lines, the match industry may expect a certain economy in this item. The development of chemical industries and paper to an extent as to materially help the match industry is, however, a question of time; but we may assume that these will in due course form material factors in determining a competitive cost of Indian matches for world competition.

(b) Technical knowledge has to be obtained in the initial stages, at a considerable cost, but with the development of the industry in the country and with training being received by Indians, the expert technical knowledge will be obtainable at a much lower cost. With the experience, which is being gained of Indian

conditions as applied to this industry, there is much that can be done to improve and organize the working with a view to economy and efficiency.

- (c) Labour of which India has more than plentiful, is much cheaper than that available in other countries producing matches. Trained labour is of course essential for efficient and economic working. It is encouraging to note that Indian intelligence receives that training quite quickly.
- (d) The question of inland tariff for raw material and finished products is one which deserves a careful and sympathetic consideration of the Government of India, and is one which is worthy of being taken up by Government in the interests of the Indian industries. Considering that the development of the match industry in the country, apart from transport of finished products, ensures to railways an additional revenue on account of the transportation of all raw materials incidental to manufacture; the railways by allowing concession freights to encourage the industry, would be helping their own revenue. There could be a material reduction of cost as soon as concession freights can be had, and a decided encouragement to the manufacturer dealing with Indian timber.
- (e) Timber which is of primary importance is abundant in India, and there is plenty that can be suitably employed for match manufacture while most of it at present remains unutilized for want of transport facilities. This is a severe handicap under which the Indian Match enterpriser is labouring at present.

It will be observed that although the question of obtaining timber at present at prices economic enough to withstand world competition is a difficult one, yet the difficulty is not such as to be unsurmountable. There is, however, another important feature connected with the cost of this raw material required for the manufacture of matches. In India the match enterpriser has to purchase it mostly from Government forests and in small quantities from third parties, and in both cases the suppliers of raw material have no direct interest in the development of the industry and consequently no serious effort is made to reduce the cost to a possible minimum.

We believe it should be practicable within a reasonable time to co-ordinate the interests of Government and other timber suppliers, with those of the match manufacture to an extent as will ensure—

- (a) the improvement of the growth of suitable species;
- (b) the manipulation of supplies to give timber in its most suitable condition;
- (c) the reduction of extraction costs to a possible minimum.

In view of considerations such as these it will be clear that although the match industry in India has every prospect of being able in course of time to face world competition, it is premature at present to calculate with any precision the time this would take. Much depends upon the progress that can be made in the next five years.

B.

From a study of the figures given below :—

Year.	Government Revenue in lakhs.	Matches imported in grosses.	Matches in terms of daily production grosses.	Value in rupees.	Splints. lbs.	Value rupees.	Veneer. lbs.	Value rupees.
1921-22	103	13,680,801	45,602	2,03,80,469	...	...	...	...
1922-23	154	11,285,740	37,619	1,61,80,658	...	...	...	...
1923-24	138	11,243,745	37,479	1,45,91,813	...	...	...	...
1924-25	126	7,264,785	24,215	88,88,611	967,305	1,95,413	2,780,063	10,08,935
1925-26	118	7,928,522	26,428	93,45,036	25,521	4,809	1,128,751	3,86,910

We observe that since the duty of Re. 1-8 per gross was levied on matches, the import of finished matches began to fall. The decline of revenue was noticed in the financial year 1923-24 and to counterbalance the decreased revenue the import of splints and veneers in place of the finished matches that accounted for the drop was also taxed. In the year 1924-25 there was a large import of splints and veneer and presumably years also. But in 1925-26 a decided fall in the import of splints and veneer was noticeable which undoubtedly indicated an extensive import of match logs.

It is apparent that the first attempt to avoid the import duty consisted in replacing finished matches with splints and veneer, and when the latter were also included in the schedule of special duty, a fresh device was found to evade the duty by the importation of match logs, which has increased by leaps and bounds in the two years 1924-25 and 1925-26. It would be in keeping with the policy adopted by the Government of India in 1924, if they were to impose a special duty on match logs also to safeguard the interests of their revenue.

The fall in Government revenue may be attributed to—

- (1) the growth of the match industry based on Indian timber,
- (2) evasion of the duty by importation of match logs.

The former as a matter of fact, if at all, can account only for a very small portion of the decrease, while the latter is mainly responsible. If a special duty had been levied as was suggested at the time by the indigenous manufacturers Government would have been saved, we venture to observe, the loss of revenue. We therefore strongly urge the expediency of taxing imported match logs further, in addition to the existing *ad valorem* duty.

Another reason for the fall in Revenue is the suspected abuse of the right of transshipment of Native States. Matches are being imported to some of the Native States through their ports in a much larger quantity than the actual demand of those States and the excess quantities are sent to towns in British Territory a long way off from those States avoiding the custom duty legitimately due to the British Government.

(C)

- (a) Considerable capital has been sunk in the match industry during the last five years or so. We are alive to

The vested interests created as a result of this duty. the fact that large investments have been made in this direction by the

Swedish American Trust who control important match factories in different parts of the world and are therefore keenly interested in importing foreign matches into India. They are essentially out in India with a view to avoid the Re. 1-8 duty and to exploit the country to their own advantage. We cannot for a moment conceive that the Government of India will tolerate the idea of exploitation of the country by the foreigners who are anxious in their own interests to kill the prospects of an indigenous Indian industry and are capable of bearing substantial temporary loss to ensure their ultimate gain. It would be a great catastrophe both for the ultimate revenue to Government and for the industrial benefits that could accrue to the people of India. We do not therefore consider that the investments contracted in India by foreign enterprisers, as opposed to the Indian interests, deserve any protective consideration whatsoever. At their best, the foreign investments were a gamble undertaken to ensure the ruination of India's indigenous interests and should therefore be treated as such.

- (b) There are however certain Indian firms and individuals who have hitherto developed a business with the use of foreign timber. We however consider that every inducement and facility should be offered to such Indian firms and individuals to employ their enterprise in the interests of Indian timber by which measure a substantial impetus will be afforded to the indigenous industry and a consequential gain to the Forest and Railway Revenue, and to a large amount of labour that could be employed on works preceding the actual manufacture in a factory.

(c) In addition to the factories already in existence and actually working with the Indian timber there are many fresh ventures either under construction, or contemplation. We have no doubt whatsoever that in addition to large investments actually made on these constructions considerable sums of money have been spent by Indian enterprisers on preliminary investigations and enquiries.

(d) There has been a decided gain to the Indian Railway owing to the establishment of match factories using Indian wood. Factories based on imported wood, to thrive, must be located on or near seaports, and hence no freight on carriage of Match Timber, Chemicals, Paper, Fuel, and other imported stores, can normally accrue to the Railways from them. Factories using Indian timber must invariably be situated inland, and thus to ensure the delivery of various materials incidental to manufacture a decided Revenue accrues to the railway. With the growth of factories using indigenous timber the increased railway revenue will become an appreciable vested interest.

(e) With the increase in the requirements of timber there is bound to be an increase in the labour employed on its extraction, and with the propagation of suitable species of match wood and their extraction, the increased employment of labour will be a material factor for consideration. Every endeavour is being made in various quarters to place on the market at economic rates timbers which are suitable for match manufacture. We understand that there are in Northern India extensive plantations of suitable timbers in hand which in the course of 10 to 15 years would, it is hoped, be able to furnish timber of very superior quality to manufacture about 10,000 gross of matches a day. Undertakings of this kind will doubtless follow in quick succession in other provinces if only the Indian enterpriser has the guarantee of protection to see him successfully through the period of experiment and development.

(f) With the fixation of the Re. 1-8 duty in the normal course there should have been a tendency for the market rates to have risen. It is the Indian manufacturer that has ensured a further decrease in the price and has ensured to the consumer the rate of 3 pies per box. He has thus materially safeguarded the interests of the consumer, which can by no means be considered to be a negligible factor in the interests of the country.

(D)

We have discussed in a previous paragraph the difficulty under which the present Indian manufacturer is labouring in selling his goods against those imported or manufactured with imported logs. It will not be out of place to mention here that the actual fall of revenue due to the import duty is not so high as it appears to be. Match manufacture in India has increased the import of Chemicals, Papers, and Wood, etc., and has increased the consumption of wood from Government forests. The increased revenue on these heads considered along with its apparent fall on matches would show the figure much less. We do not consider it would in the circumstances be at all desirable or justifiable, at such a stage, to contemplate the taxation of the indigenous match industry with a view to make up the actual shortage of Government revenue. If our suggestions summarized at the close are agreed to, the Government will not only be safeguarding its own revenue, but very largely protecting the interests of the consumer. In the circumstances we consider that the question of taxing the indigenous industry does not arise.

It is an acknowledged fact that matches are more or less an indispensable necessity of life, and the match industry is of great economic importance, if India is to be self-contained. We are aware that with the expansion of the indigenous industry, there can be no danger of an undue rise in prices, as competitive conditions within the country will contribute to regulate the minimum price.

In addition to this, there is the important question of India being developed to be self-contained and self-dependent within the Empire. Want for

this was prominently felt during the great war, and if on any grounds Great Britain is ever hereafter drawn into war with the match producing countries or there is any disturbance in the waters separating India from the foreign countries manufacturing matches, the condition of India would be pitiable, unless she has developed her indigenous resources and is self-contained. We believe it should be accepted as a principle that where the questions of the economic development of the internal resources of the Empire are concerned, and the conditions for the development of an industry are not unfavourable, the industry should as far as possible be adequately protected. There can be no gainsaying the fact that the indigenous match industry is decidedly one which comes under this category, and consequently any proposal for taxing it would be most detrimental to the interests of the country and the Empire.

The conclusions arrived at may be summed up thus:—

1. That the three conditions laid down in paragraph 97 of the Indian Fiscal Commission Report are satisfied in regard to the match industry and that the industry should be protected.
2. That the custom duty imposed at present on imported, finished matches, splints, and veneers, should be converted into a protective duty on the same scale.
3. That a suitable protective duty should be imposed on imported match logs.
4. That a suitable excise duty of not less than 8 annas per gross should be imposed on the production of factories of which three-fourths of the capital and Directors are not Indian.
5. That any fresh tax levied on the manufacturers using indigenous timber would be ruinous in the interests of the country.
6. That suitable measures should be adopted for increased facilities for Railway and Steamer transport of Indian match wood throughout the country.
7. That the import of foreign matches through Native States by trans-shipment methods requires very careful examination.

**The Malabar Match Manufacturing Company, Limited, Cochin,
Madras Presidency.**

Representation, dated 16th December 1926.

We have received from you a printed circular asking for objections to a possible decrease of import duty on matches, and would refer you to our letter of the 2nd instant with which we enclosed a copy of our letter of the 29th October last to the Secretary, Finance Department, Central Board of Revenue, Delhi.

In the above letter we emphasised two points which have an important bearing on the subject, and we cannot do more than lodge our protest against the possibility mentioned in our first paragraph.

Opinion seems to be generally in favour of the duty being made a protective one instead of it continuing to appear in the ordinary Revenue Schedule, but this is purely a matter for the Government to decide. It is obvious, however, that to make any reduction in the existing duty would be tantamount to an attempt to destroy a home industry which has been fostered and has grown under the protection of the duty at present in force.

It is certain that indigenous timbers are providing a good substitute for timbers grown in countries where match making is one of the principal industries, and in our own case we have gone to considerable expense and trouble in experimental work to make our own locally grown timbers of more use to us. The Company has been in existence for three years, and it is only now that we can see a chance of success. Were the duty on imported matches to

be reduced, so that competition from Sweden and elsewhere became more dangerous than it is at present, it would merely mean that the success which we anticipate would not materialise, and shareholders would be faced with a heavy loss instead of a reasonable profit on their investment—a possibility which we naturally wish to do our utmost to avoid.

As our own situation must approximate that of most other Indian Match Manufacturing Companies, it is reasonable to assume that legislation which would result in our factory ceasing operations would have a fatal effect on the Indian Match industry in general.

The Malabar Match Manufacturing Company, Limited.

Letter, dated 18th December 1926.

Referring to the Press Communiqué issued on the 29th ultimo under the above title, we now enclose six spare copies of the two letters we have already written on the subject of the possibility of revision of the import duty on matches.

We are endeavouring to procure a copy of the Report of the Indian Fiscal Commission referred to in the abovementioned communiqué, and if necessary on receipt of the same, we will address you further.

Enclosure I.

Cochin, 29th October 1926.

The Secretary,
Finance Department,
Central Board of Revenue,
Delhi.

Sir,

Possibility of revising Import Duty on Matches.

We refer you to the statement recently published to the effect that the question of import duty on matches has been referred to the Tariff Board for their consideration and report.

The chief reason for instituting this enquiry appears to be a decrease in revenue since the duty was fixed at the present rate and judging by press reports the opinion is held that this reduction in revenue is entirely due to a reduction in the quantity of matches, splints and veneers imported.

It is by no means certain that this is the case, for it is a fact that since the duty was raised, Foreign Exporters have increased the size of the box exported and increased the number of matches per box up to the limit prescribed by the Customs Schedule. It is probable that this process has been taking place gradually during the past three years and its effect would naturally be a reduction in the number of boxes of matches consumed.

A similar movement has taken place in the splint, veneer or timber imported, in that Indian manufacturers, or foreign companies with factories in India using imported material, have reduced the size of box and match produced, and thus reduced the incidence of the duty.

We bring the above two points to your notice as they have an important bearing on the subject and they present an aspect of the situation which this company, as representing vested interests in the Indian Match Industry using indigenous timbers, does not wish to be overlooked.

We have the honour to be,
Sir,
Your most obedient servants,
**THE MALABAR MATCH
MANUFACTURING CO., LTD.**

Enclosure II.

Cochin, 16th December 1926.

The Secretary to the Tariff Board,
Calcutta.

SIR,

We have received from you a printed circular making for objections to a possible decrease of Import Duty on Matches, and would refer you to our letter of the 2nd instant with which we enclosed a copy of our letter of the 29th October last, to the Secretary, Finance Department, Central Board of Revenue, Delhi.

In the above letter we emphasised two points which have an important bearing on the subject, and we cannot do more than lodge our protest against the possibility mentioned in our first paragraph.

Opinion seems to be generally in favour of the Duty being made a protective one instead of it continuing to appear in the ordinary Revenue Schedule, but this is purely a matter for the Government to decide. It is obvious, however, that to make any reduction in the existing Duty would be tantamount to an attempt to destroy a home industry which has been fostered and has grown under the protection of the Duty at present in force.

It is certain that indigenous timbers are providing a good substitute for timbers grown in countries where match-making is one of the principal industries, and in our own case we have gone to considerable expense and trouble in experimental work to make our own locally grown timbers of more use to us. The Company has been in existence for three years, and it is only now that we can see a chance of success. Were the Duty on imported matches to be reduced so that competition from Sweden and elsewhere became more dangerous than it is at present, it would merely mean that the success which we anticipate would not materialise, and shareholders would be faced with a heavy loss instead of a reasonable profit on their investment—a possibility which we naturally wish to do our utmost to avoid.

As our own situation must approximate that of most other Indian Match Manufacturing Companies, it is reasonable to assume that legislation which would result in our factory ceasing operations would have a fatal effect on the Indian Match Industry in general.

We have the honour to be,

Sir,

Your most obedient servants,

THE MALABAR MATCH
MANUFACTURING CO., LTD.

The Malabar Match Works, Palghat, Madras Presidency.

Representation, dated the 23rd December 1926.

We the above match manufacturers beg to bring the following few lines to your kind consideration.

We have seen the advertisements given in the newspaper both by the Government of India and by the Tariff Board about the protection to the above industry. No doubt the first part (beginning) gives us pleasure to note, while the points shown on conclusion are contrary.

Regarding downfall in Revenue.

We surely can say, that the supposed downfall in Revenue is not due to this industry. But it is due to the reduction in import duty on salt and other several things. Besides that various other industries have sprung up

in India after the conclusion of war. As far as this industry is concerned it is needless to state that a portion of import duty is levied by the importation of chemicals, wood and paper and the like which are used for the above industry.

In conclusion when we try our level best to get freedom and free liberty in these days we request you to conclude this matter favourably to protect us from the difficulties.

Under the circumstances above mentioned what all required is that the present import duty should be retained as a protective one.

And we give you another suggestion *i.e.*, a decent duty can be levied on big industries which produce as outputs of 50 gross of matches daily. And this thing will not in any case be difficult to them or neither affect them.

Further we think it will be better to postpone the matter for at least one year to come. And we also hope that we will receive a favourable reply from you at your earliest convenience. Further it is a great sin if any hindrance will happen for cottage industry.

Duty.

We beg to state that the present import duty levied on the above is a protective one; and so it is impossible to do this industry without the present duty in the whole of India itself. Taking into consideration the above fact itself is a great protection, we have began this industry. And so if any changes were to be made in the same, now it is sure and certain that the above industry will be ruined once for all. In India when there is not a proper industry in these days owing to the beginning of the various factories in the above industry not only millions of people live upon the same but also young boys who are idling away their time are easily brought forward to a prosperous condition. This industry will naturally induce the owners to conduct several other similar industries also.

Thanking you in anticipation.

The New Madras Match Factory, Madras.

Representation, dated 23rd December 1926.

In reply to yours of the 7th instant, bearing No. 3148 (Development Department), I have the pleasure to submit to you the following:—

It is some years since the Government of India has been looking forward to develop industries in India, so much so large amounts of moneys have been spent by her only for the development of this Art. And since the time of the increment in duty on imported matches "Match Industry" in India has found its way here, so that now India boasts of producing about 20 per cent. of the stuff consumed here. The progress no doubt is slow, but it is steady and sure increasing provided the present Revenue duty is transformed into a permanent protective one. If there be change, *i.e.*, reduction in the duty even to a slight extent, no doubt it will greatly affect the industry and will retard it and eventually annihilate it. Annihilation, of course, our benign Government hates.

The slow progress has been owing to lack of capitalisation and imperfect education in this line. These two drawbacks are being made good; capitalists are coming forward, importation of experts does eventually prove beneficial to India. India is trodding towards perfection. Experts in India are as good though not better as foreign experts.

In view of the present invested interests in this industry, *i.e.*, the expenditure made by the Indians there is every necessity of retaining the full Revenue duty as protective. Even the very name of any reduction will break the back of the enterprising classes, who with difficulty have so far been in fact successful,

The Customs Revenue, which will no doubt, decrease if protective duty is made permanent, can be made good to a great extent from the duty derived of raw materials and such as and more specially the future improvement of Indian forests, paper, chemicals, machinery, all of which will naturally increase in proportion as industry in India drives out foreign stuff. Again there are many other Revenues for the Government about which the Government itself is better aware of, to make good the deficiency in income of the Customs, if any.

Apart from these the unemployment question may be pushed out to some extent by means of the Government taking in people in Forest Department to look to the wood problem and by their employment in factories which are to be started.

In my opinion, therefore, I shall recommend protection tariff,

The South Indian Match Factory Limited, Madras.

Representation, dated 24th December 1926.

With reference to paragraphs 3 and 4 of the Press Communiqué, dated 29th November 1926, on the Match Industry in India, I have the honour to submit the following representations of the South Indian Match Factory Limited, Madras, which desires to claim protection for the industry and bases its claim on the following grounds:—

(1) This Company's factory was started to meet the local demand for matches and is well-equipped. It is located in the midst of Travancore forests which abound with plentiful supply of suitable timbers and fire-wood required for the industry. There is also a sufficient supply of labour and it is too well-known that there is a large home market for matches. The factory is capable of producing 700 gross a day and when it develops sufficiently the output can be still further increased.

(2) The industry is a nascent one and requires the help of protection without which it cannot develop to any satisfactory extent; particularly so, owing to the fact that Sweden, which has practically the sole monopoly of Match Trade in India, is upset by the indigenous enterprise in this direction and has already launched an offensive against the Indian Match Industry on a large scale, by creating a Trust in India and starting factories in various centres in India. The object of the Trust is to kill the existing match factories in India in order to attain their real aim which is to govern the world's match trade. To this end, a factory has already been started near Bombay and another in Calcutta and both these factories are already working and an extensive underselling of Indian made matches has already begun. In addition to this, the construction of factories at Karachi and Madras is shortly going to be taken in hand. Moreover, several factories in Colombo and Rangoon have been bought by the Trust which has also opened a Match Manufacturing Supply Company in Bombay. It is therefore highly necessary that the import duty on matches should be maintained at its present level or even raised and all Trusts of foreign capitalists should be made to pay excise on their products so as to make up for the loss of revenue to the Government. In fact, a duty should also be imposed on import of foreign wood in logs to help the indigenous industry. Otherwise, there is no doubt that the Trust will be enabled to monopolise India's match trade and the consumer will have to suffer. Because, after attaining their aim in killing indigenous industries they will fix the prices at such a level that they will more than recover their former loss. In this connection, a copy of "Industrial and Trade Review for Asia" is enclosed for information.

(3) The match industry is one which will eventually be able to face competition without protection; but it will take some time and during that time protection is absolutely inevitable,

(4) In addition to the import duty the grant of a bounty will accelerate the development.

Enclosure.

INDUSTRIAL

AND

TRADE REVIEW FOR ASIA.

For promoting Asia's industrial development and foreign trade relations, 1925
Berlin, October (First Half). No. 19

THE FOREIGN DANGER TO INDIA'S MATCH INDUSTRY.

The time is rapidly ceasing to be when India was solely a supplier of raw materials to foreign countries and buyer of manufactured articles. The country is being industrialised, and foreign capitalists, whose only Fatherland is the land which provides the best opportunities for lucrative investment, are not slow in casting their greedy eyes upon the unexplored resources and cheap labour of the Indian continent. The problem has now become extremely acute and Indian opinion is rightly concerned about the alarming growth of foreign private and joint stock companies which not only cause a large drain of India's wealth in the form of interest and dividends, but, what is far more serious, tend to transfer the key-industries of India into foreign hands as well as to prevent the growth or prosperity of a number of industries in which India could be self-dependent and self-supporting.

To this latter category belongs the match industry. It was long believed that the Indian match industry was deemed to failure for want of suitable timbers. But during the last few years it has been clearly proved that this is a fiction. India is one of the largest markets in the world for the consumption of matches and she is obliged to import enormous quantities from foreign countries. The most important of those is Sweden; the import from Austria, Hungary, Japan, Norway, Czechoslovakia or Finland is inconsiderable in comparison with Sweden. That country has, therefore, a very strong interest in preventing the growth of the match industry in India, for it would be a severe blow to Sweden's largest export trade if India should succeed in manufacturing matches on a sufficiently large scale to satisfy the demands of the Indian market.

The Swedes have, therefore, decided to start their own factories in India—a fact that has already aroused considerable indignation in national India circles. But the exact manoeuvres of the Swedes still seem to be not clearly understood by the large majority of Indians and it will, therefore, be very instructive to them to read the following facts that have been placed at our disposal by a German Match Expert who has recently returned from India after many years' stay there, who has set up match factories for a number of Indian Capitalists and who is sincerely and enthusiastically interested in the development of the match industry in India. He says: "It is well-known that India is to-day the best customer for Swedish matches. This is solely due to India being unable to produce her own matches. And this again was and is still due to lack of enterprise and difficulties in obtaining timbers suitable for match manufacture. Lately, however, things have considerably improved. Since over two years the Indian match manufacturer has been protected by an import duty of Re. 1-8 per gross of boxes of matches. As the cost price of good matches made in India is somewhat below Re. 1-8 per gross, it is obvious that a good return for the capital outlay is assured and there is, no doubt, a fair opening for the match industry in India. In fact, some of the Indian businessmen are at present very keen on starting match factories in

India, and lately some well-equipped factories have been started. It is almost certain that, in course of time, India will be able to produce her own matches and then the import of foreign matches, chiefly of Swedish make, will stop automatically. Sweden, or to be quite correct, the Swedish-American Match Combine, is watching this development with keen interest. They have already launched an offensive against the Indian Match Industry on a large scale. They did this in such a cunning way that most of the Indians have been taken unawares. It is worthwhile to go a little further into the practice of the said combine. Above all one thing is certain, the real aim of the said Match Trust is to monopolise the world's match trade. The means employed by the Trust to attain this end are numerous. According to circumstances they employ fair or foul means. To be just it must be admitted that they employ fair means first. If unsuccessful, they will use foul means unscrupulously. It is impossible within the available space in this paper to depict the various ways and means employed by the Trust. Generally, the practice employed is as follows. After having undersold the matches manufactured in the country for a considerable time (the English call this dumping), they approach the factories with a proposal to buy the whole business. As a rule, the price offered is a decent one. Of course, the owner will be bound over not to do any more business in matches. Very often, after having bought the factory, it will be closed down. Then, of course, the import of matches must commence again. Quite a number of match factories in Europe and elsewhere have come under the influence of the Trust and a great number have been bought by the Trust.

What means is the Trust now employing in India? Before all it must be perfectly understood that the Trust is out for killing the existing match factories in India; in order to attain their real aim, i.e., to govern the world's Match Trade. To attain this end the Trust has started a factory in Ambarnath near Bombay and another one in Calcutta. Both these factories are already working and an extensive underselling of Indian made matches has already begun. In addition, factories at Karachi and Madras are in course of construction. Moreover, two existing factories, one in Colombo and the other in Rangoon, have been bought by the Trust. Further, some of the important factories in India have received very favourable offers, fortunately so far without success. They also have opened the Match Manufacturing Supply Company in Bombay. This Company, besides supplying paper and chemicals for match manufacture (mostly of Swedish make) is acting as Agent for Messrs. Gerh. Arehn, Stockholm. The last named firm is supplying match making machinery but lost its independence some time ago, or in the other words, it belongs to the Trust. The said supply Company comes as a wolf in sheep's clothing to the Indian businessman. They offer materials cheaper than any Continental or English firm. Indeed, this Company undertakes to equip factories almost for nothing. They offer to take payment after years: Why? Any man with a reasonable amount of business brains will feel sure that there must be a "fly in the ointment" somewhere, or as the Indians say "Kuchh dal men kala hai." And so there is: If, for some reason or other, the payment is not forthcoming after the agreed period, the Trust will take over this factory without much ado and thereby strengthen its position in India more and more. Most of the readers of this paper will say there will be comparatively few Indians who will go into this trap. This is not so. It may be mentioned here that lately the Government of Bihar and Orissa has been trapped in the aforesaid way. There in Patna, the Swedish-American Match Combine is erecting a small demonstration factory on behalf of the Government. By allowing that, the Government of Bihar and Orissa has assisted the Swedish Match Trust and has acted against the interests of the country and people. It must be mentioned here, however, that the Government did not know at the time that the Match Manufacturing Supply Company and the Swedish-American Match Combine are identical. Unfortunately, only a few Indians are acquainted with this fact.

During the last year, a few big factories have been started near Bombay by enterprising Indians. These factories import suitable wood in logs from Siberia. Their matches are finding a ready sale. The Swedish factories in

Ambarnath and Calcutta import wood in logs also. There is no import duty on wood in logs. Now the Trust is feeling the competition of these factories and in order to get rid of them they urged Government to put a high duty on wood in logs also. They did not do this in a straightforward way but got behind some officials and other influential people. Fortunately the Bombay businessmen are wide-awake and the attempt of the Trust failed. If they had succeeded, the Indian factories besides the Swedish factory near Bombay would have had to close down. As the above mentioned Indian factories are considerably larger than the Swedish factory, this would only mean that the Trust is getting nearer its real aim, *i.e.*, to govern the world's match trade. The last mentioned move of the Trust was a very clever one and quite a number of Indians were unable to see the real object of the Trust. The Trust is keeping up its propaganda regardless of expenses.

It will be of interest to mention a few items about the Trust. The capital of the Combine is 180 million Swedish Kronan (about 15 crores of rupees). On the Board of Directors are names like Percy A. Rockefeller, Samuel F. Pryor, H. Havenmeyer, John McHugh of the Mechanical-Metal-National Bank, F. L. Higginson of the Bank Lee Higginson & Co., New York. Chairman is the Swede, Ivar Kreuger.

There is no doubt that, if the Trust is able to monopolise the World's Match Trade the consumer will have to suffer. Because after attaining their aim, they will fix the prices at such a level that they will more than recover their former expenditure. Moreover, it is of no interest to Indians if their industries are organised solely, with foreign capital.

Let us hope that India will be among the countries where the Trust is unable to secure a footing.

Now this same Mr. Kreuger, the Director of the Swedish Match Company, has been clever enough to publish a review of the world's match industry with the special object of throwing sand into the eyes of the Indian people. After showing how Sweden has been able to overcome the difficulties caused by the War and to compete successfully in the world's market, he says:

"It is easy to understand, however, that if the Swedish match industry is to retain its leading position, it cannot rely only on the Swedish factories. And for this reason the Swedish Match Company decided a few years ago to go in for a programme of taking an interest in match factories abroad on a very large scale. We have now in operation two newly-built factories in India, one in Bombay and one in Calcutta, and we are building two new ones, one in Karachi and one in Madras, and we have acquired two established match factories in Colombo and Rangoon. It is not our intention to try to monopolise the Indian match trade, and we have decided to seek the co-operation of prominent Indians in our Indian undertakings."

We should like these utterances of the Swedish Director to be read in the light of the above statement of the German expert. It is highly important for Indians to know all the facts regarding the methods of the Swedish Match Company, as well as their innocent-looking ramifications abroad. It should be known to them that the Norden Export Company of Sweden, and the Nord-deutsche Maschinen-Vertriebs Gesellschaft in Berlin are both alleged to have very intimate connections with the Swedish Trust, and the main object of these so-called suppliers of match-making machinery is to monopolise India's match trade and make Indian factories impossible, except in Swedish hands. We warn all Indians against purchases of machinery on easy terms from suspicious firms, and we advise them to have dealings only with well-established German manufacturers of match-making machinery about whom there can be no doubt whatsoever. We shall be happy to supply all intending manufacturers with the names of all the reliable machine firms in Europe and we sincerely trust that Indian capitalists will organise themselves to establish and control match production in India and make it impossible for the Swedish Trust to obtain a footing there.

Swan Match Works, Madras Presidency.

Representation, dated 29th December 1926.

With reference to your Press Communiqué in connection with the Match Industry in India I beg to offer the following observations:—

1. If Indian Government wants to safeguard the Match Factories of India, it will be highly advantageous if the tax on the imported matches increased.
2. If protection is granted to this industry in India it will be helpful only to the foreign factories in India and also to Great Indian Capitalists. Under these circumstances the Cottage Industries will not in any way be benefited, but on the other hand will experience a great loss as a result of competition with bigger foreign and Indian factories. There are no chances in India for this industry to flourish, but it is now getting on because of the increased duties on the imported goods.
3. The Indian wood used for this industry is not quite suited and to make ones matches popular one has to go in only for foreign wood which is more attractive and strong. Many of the big factories in India get their supplies from Japan and Sweden. So the duty of the foreign imported wood might advantageously be increased.
4. It is a fact that this has caused a great loss to the Government but because all the match materials are to be got from outside, the loss will be covered up by the consequent greater demand for the materials. The Government will also be getting a decent income from the Indian forests as a result of the demand for Indian wood.
5. This is a Cottage Industry in Japan and it can be profitably made so here also. If the Government is pleased to levy a super-tax on the large scale match factories of India, the Cottage Industries will then be encouraged and it will be a source of additional income to the Government.
6. If the Government is desirous of encouraging home industries without considering the loss in this source, it will do well to overlook the loss and decrease the duties on imported match materials (Wax, Glue, Paper and Chemical drugs, etc.), and also grant free of cost the State forest wood for the manufacture of matches.
7. India is thickly populated country where the question of unemployment is very keen. In other countries the help of machinery is sought, because of want of labour. This cannot hold good with India. So, if the Government is pleased to restrict the machinery in India there will be demand for labour and the question of unemployment will be no more heard. The Government then will not have to tackle the question of Indians in other Colonies.

The Madras Swadesh Match Factory, Madras.

Representation, without date.

We the above match manufacturers beg to bring the following few lines to your kind consideration.

We have seen the advertisements given in the newspapers both by the Government of India and by the Tariff Board about the protection to the above industry. No doubt the first part (beginning) gives us pleasure to note, while the points shown on conclusion are contrary.

Duty.

We beg to state that the present import duty levied on the above is a protective one; and so it is impossible to do this industry without the present duty in the whole of India itself. Taking into consideration the above fact

itself is a great protection we have begun this industry. And so if any changes were to be made in the same now it is sure and certain that the above industry will be ruined once for all. In India when there is not a proper industry in these days owing to the beginning of the various factories in the above industry not only millions of people live upon the same but also young boys who are idling away their time are easily brought forward to a prosperous condition. This industry will naturally induce the owners to conduct several other similar industries also.

Regarding downfall in revenue.

We surely can say, that the supposed downfall of revenue is not due to this industry. But it is due to the reduction in import duty on salt and other several things. Besides that various other industries have sprung up in India after the conclusion of war. As far as this industry is concerned it is needless to state that a portion of import duty is levied by the importation of chemicals, wood and paper and the like which are used for the above industry.

In conclusion when we try our level best to get freedom and free liberty in these days we request you to conclude this matter favourably to protect us from the difficulties.

Under the circumstances above mentioned what all required is that the present import duty should be retained as a protective one.

And we give you another suggestion, i.e., a decent duty can be levied on big industries which produce an output of 100 gross of matches daily. And this thing will not in any way be difficult to them or neither affect them.

Further we think it will be better to postpone the matter for at least one year to come. And we also hope that we will receive a favourable reply from you at your earliest convenience. Further it is a great sin if any hinderance will happen for the cottage industry.

The Mysore Match Manufacturing Company, Limited, Bangalore.

Representation, without date.

I have enclosed my views with regard to enquiry about the duty on Match Industry in India.

Please put this matter before the Tariff Board and oblige.

To

The Secretary,
Tariff Board, Calcutta.

DEAR SIR,

With regard to the notification of the Government of India regarding the enquiry of the Tariff Board about the duty on the imported matches, I am writing on this matter as one of the promoters and the Directors of the Mysore Match Manufacturing Company, Limited, with an issued capital of five lakhs. I can realise fully the difficulty to which the match industry in India will be put into, if there should be any change in the policy of the Government of India with regard to the present duty which has been imposed on the imported matches.

I think the time is not yet ripe enough to remove the present duty which has been imposed on the imported matches at the rate of Re. 1-8 per gross; as it gives an impetus to the indigenous industry for its development; this was the only cause which gave a hope to the Indian capitalists, to start this industry in India as it was favourable to compete with the outside manufacturers who have built up themselves strong for centuries to cripple any of their rivals in the whole of the world where this industry is not protected. It is

after the imposition of this duty that many enterprising men and firms took into their heads of finding out suitable woods which are suitable for the purpose in the Indian forests. This took them some years at least to hit at the proper soft woods, after great many experiments which cost them their time and money. Still they are in experimental stages and they are not yet away from many difficulties. Some have started their business, some have ordered their machinery and some are still contemplating of starting. At this short time the announcement of the present enquiry into it has discouraged many of them. So it will be a sheer waste of time and money on the part of many of these industrialists, if the duty is to be removed in such a short time. All the Indian capital will be sunk into the useless building materials and useless iron machinery which will be nothing but scrape iron. If at all the Government wants to see that this industry should flourish, the duty should be made permanent at least for twenty years before it could be fully developed and could stand any competition; and the Government should impose a duty of at least 125 per cent. on the imported logs, for this purpose, which will induce the indigenous manufacturers to find out more species of woods suitable for the purpose; this is more essential than any other thing to give a full scope for the utilization of the local forest woods and to make the industry purely indigenous.

Besides that the imposition of the duty does not affect the British manufacturers as Britain is not at all supplying the requirements of India. It is solely either Swedish or Japanese. The latter is out of the market as it cannot favourably sell their stuff in India, thus one can see very well what a salutary result this imposition has brought, and it has stopped the supplies from one country which was supplying for a long time. The only country which is now supplying the needs of India is Sweden and we are not much concerned whether the Swedish Industry is crippled by this duty or not; so the Indian Government is legally and morally bound to protect the interest of India by having a strong protective duty on the imported matches; so that even the Swedish stuff is removed from the Indian market and thus give a good impetus for the development of the Indian match industry. So, one cannot see why this industry should not be fully protected.

A question may arise, as to the difficulty to which the general public is put to, as it has to pay a bit more for the matches the public uses; but as far as one can see the user is not at all complaining about the extra price which he is paying for his matches owing to this duty. He is quite used to it and he is most willing to pay the swelling price as long as he sees that duty is helping the springing up of the Indian Match Industry and he never grudges to pay even if it is enhanced and he is most willing to see that any of the Indian Industry is similarly protected which is a means of helping the development of any of the industries.

M. ABDUL RASHID SAHEB,

Director.

The Mahalakshmi Match Factory, Punjab.

Representation, dated 30th December 1926.

With reference to your Press Communiqué, dated 29th November, 1926, regarding the protection of the Match Industry, we beg to submit our views on the subject as follows:—

The three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission relating to industries claiming protection are that:—

- (1) The industry must be one possessing natural advantages such as—
 - (a) abundant supply of raw material,

- (b) cheap power,
 (c) sufficient supply of labour,
 (d) large home market.
- (2) The industry must be one which without the help of protection either is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country.
- (3) The industry must be one which will eventually be able to face world competition without protection.
- (1) Applying these tests to the Match Industry we find with respect to No. (1), "natural advantages."
- (a) That in Bengal there are very large supplies of suitable wood in Sunderbans. In Assam there is also an ample supply of suitable wood. In Bihar and Orissa according to the report of the Government Expert there is sufficient suitable wood, and a Government Model Factory has been started in Patna. The United Provinces, we know abound in the supply of Simul wood. There are large quantities of Bluepine available in the Punjab and we know that even if the timber is secured at market prices it is possible for the industry to develop. Poplar wood is also to be had in the Punjab and though the results with this timber hitherto have not been very satisfactory, yet with the improvement of the growth of these trees it may be expected to prove a very useful raw material obtainable at comparatively more economic rates. Mango wood is also to be had in the Punjab and its utility as a match wood may be said to have added to its importance in this province. In Madras Forests plenty of suitable match timber is available. In Kashmir there is a plentiful supply of suitable Poplar, Spruce, and Willow wood; and recent experiments and examination have shown that inspite of the disadvantages of distance to rail head, it could be possible to work economically with these timbers.
- (b) The question of cheapness of power will vary in different provinces, but it may be observed generally that in the existing conditions the cost of power does not handicap the manufacture of matches. In Western India, Tatas have launched upon a large Electrification Scheme and are supplying power at very cheap rates. In the Punjab the Mendi Hydro-Electric Scheme guarantees power at cheap rates, while in Kashmir, electricity for commercial purposes may be had at under 6 pies per unit. Thus with the electrification which is in progress in different parts of the country, power will be available at cheap rates. Moreover, India is a large coal producing country and Burma abounds in Petroleum.
- (c) As regards the supply of labour, there is no doubt that there is plenty of it in all provinces of India and that the same may be had at low rates. In fact the earning of an Indian is the lowest in the World. Our experience shows that they are quick at picking up technical knowledge. It is evident that the cost on labour forms a very encouraging factor for the Indian Match Industry when compared with the labour costs in other countries, and with the rise of efficiency it will, after a time form an important factor in enabling Indian Matches to withstand world competition.
- (d) As to market, it is well known that there is a large home market which is at present in the hands of foreign capitalist manufacturers.
- (2) It is abundantly clear from a study of the history of the industrial development of India for the past quarter of a century or so that inspite of various attempts made from time to time the match industry has not been able to develop at all, and it has not been possible for this industry until
- The Industry is one which without the help of protection is not likely to develop at all.

lately, when the Government of India levied an import duty on foreign manufactured matches imported in India, that the indigenous Indian enterpriser received an appreciable measure of encouragement to attempt developing the industry. The reason for this industry not being developed inspite of the fact that India possesses various kinds of timber suited for match manufacture is also apparent. Foreign countries have been masters of this industry and the trade connected therewith for a long time. They possess very large organization, and facilities both natural and commercial. Their financial resources make it possible for them, after their flourishing existence for scores of years, to reduce their working cost and profits to a minimum which though bringing them only a small return on their capital, ensure to them the control over the world market in which India furnishes a very large field. They are in a position to kill a new venture by even foregoing profits for a time or even drawing on their reserve and losing a little. Indian enterpriser in this industry has therefore naturally to combat against very powerful competitors; and it is therefore evident that unless he has some kind of support and protection from Government in its early stages of development, he has little or no chance of being fit to stand up to this keen competition.

It is an admitted fact that the match industry in India has been stimulated by the Re. 1-8 per gross duty; and that prior to this although various independent ventures were made, they did not meet with any success, and the few that survived existed through sheer perseverance. It is instructive to note that up till 1921 although the match industry had been in existence for over a quarter of a century the manufacture from Indian wood hardly reached 1,500 gross per day; and that too of a very inferior quality as compared, to the imported matches. Subsequent to the imposition of the duty, the manufacture from Indian wood received a steady impetus, and in 1924-25 the figure of production of matches in India rose to about 5,000 gross per day. Considering that there are certain factories under construction, while many are under contemplation, the industry may be fairly claimed to be a progressive one with the help of the duty, which, although it was given effect to only as a revenue measure, has acted simultaneously as a protective measure for the Indian match industry. It is hardly necessary in the peculiar circumstances of the match industry to prove that without the help of protection the industry is not likely to develop. The unsuccessful ventures prior to the levy of the duty and the successful and progressive work subsequent to it prove most conclusively that without the requisite protection the indigenous match industry in India cannot develop and must if left alone, die in a short time.

Appreciable as the effects of the duty were in protecting the growth of the Indian Match Industry, the delay on the part of Government in imposing a special duty on imported match *logs*, inspite of the repeated representations of the indigenous match manufacturers, has not only caused a fall in Government revenue, but has adversely affected the indigenous match manufacture. The duty therefore although it has acted as a protective measure, has not met the aim and object for its imposition. It has been evaded by the foreign manufacturers by employing clever devices; and consequently the Indian manufacturers who took up the enterprise in right earnest, laying their faith in the protection afforded by the levy of this duty, have had to encounter extreme difficulty and to meet a severe handicap in the actual working of their manufactures.

(3) To enable the indigenous match manufacturer to ultimately stand
The industry promises to be one which foreign competition he must effectively
should be able eventually to face world
competition without protection.

(a) reduce the cost of production, and

(b) enable his products to compare favourably with foreign imports.

Considering that the first impetus received by the match industry in India was given only in 1922, a good bit of the last four years has gone in preliminary enquiries, erection of factories, and preliminary arrangements

incidental to manufacture and marketing. The cost of Indigenous manufacture is therefore still comparatively high and the finished product less attractive to the market. It is premature to gauge the extent to which cost of manufacture can be reduced and the quality of the finished product improved, though we cannot doubt that with economic and careful work results will be appreciable. It will be instructive to study the handicaps which affect the cost of matches manufactured in India from Indian timbers and to show the prospects that may be anticipated.

- (a) Chemicals and paper are at present very largely imported owing to the fact that India is not yet producing the paper nor the chemicals for the manufacture of matches. The chemical industry in India has a future before it and we may reasonably hope that the increasing demands of the match industry during its course of proper development will afford an impetus to the manufacture of superior chemicals in India. With the various attempts that are being made to manufacture paper in India on extensive and economic lines, the match industry may expect a certain economy in this item. The development of chemical industries and paper to an extent as to materially help the match industry is, however, a question of time; but we may assume that these will in due course form material factors in determining a competitive cost of Indian matches for world competition.
- (b) Technical knowledge has to be obtained in the initial stages, at a considerable cost, but with the development of the industry in the country and with training being received by Indians, the expert technical knowledge will be obtainable at a much lower cost. With the experience, which is being gained of Indian conditions as applied to this industry, there is much that can be done to improve and organize the working with a view to economy and efficiency.
- (c) Labour of which India has more than plentiful, is much cheaper than that available in other countries producing matches. Trained labour is of course essential for efficient and economic working. It is encouraging to note that Indian intelligence receives that training quite quickly.
- (d) The question of inland tariff for raw material and finished products is one which deserves a careful and sympathetic consideration of the Government of India, and is one which is worthy of being taken up by Government in the interests of the Indian industries. Considering that the development of the match industry in the country, apart from transport of finished products, ensures to railways an additional revenue on account of the transportation of all raw materials incidental to manufacture; the railways by allowing concession freights to encourage the industry, would be helping their own revenue. There could be a material reduction of cost as soon as concession freights can be had, and a decided encouragement to the manufacturer dealing with Indian timber.
- (e) Timber which is of primary importance is abundant in India, and there is plenty that can be suitably employed for match manufacture while most of it at present remains unutilized for want of transport facilities. This is a severe handicap under which the Indian Match enterpriser is labouring at present.

It will be observed that although the question of obtaining timber at present at prices economic enough to withstand world competition is a difficult one, yet the difficulty is not such as to be unsurmountable. There is, however, another important feature connected with the cost of this raw material required for the manufacture of matches. In India the match enterpriser has to purchase it, mostly from Government forests and in small quantities from third parties, and in both cases the suppliers of raw material have no

direct interest in the development of the industry and consequently no serious effort is made to reduce the cost to a possible minimum.

We believe it should be practicable within a reasonable time to co-ordinate the interests of Government and other timber suppliers, with those of the match manufacture to an extent as will ensure—

- (a) the improvement of the growth of suitable species;
- (b) the manipulation of supplies to give timber in its most suitable condition;
- (c) the reduction of extraction costs to a possible minimum.

In view of considerations such as these it will be clear that although the match industry in India has every prospect of being able in course of time to face world competition, it is premature at present to calculate with any precision the time this would take. Much depends upon the progress that can be made in the next five years.

B.

From a study of the figures given below :-

Year.	Government Revenue in lakhs.	Matches imported in grosses.	Matches in terms of daily production grosses.	Value in rupees,	Splints. lbs.	Value rupees.	Veneer. lbs.	Value rupees.
1921-22	103	13,680,801	45,602	2,03,80,469	...	...	...	...
1922-23	154	11,285,740	37,619	1,61,80,658	...	...	...	...
1923-24	138	11,243,745	37,479	1,45,91,813	...	...	...	...
1924-25	126	7,264,785	24,215	88,88,611	967,305	1,95,418	2,780,063	10,08,935
1925-26	118	7,928,522	26,428	93,45,036	25,521	4,809	1,128,751	3,86,910

We observe that since the duty of Re. 1-8 per gross was levied on matches, the import of finished matches began to fall. The decline of revenue was noticed in the financial year 1923-24 and to counterbalance the decreased revenue the import of splints and veneers in place of the finished matches that accounted for the drop was also taxed. In the year 1924-25 there was a large import of splints and veneer and presumably years also. But in 1925-26 a decided fall in the import of splints and veneer was noticeable which undoubtedly indicated an extensive import of match logs.

It is apparent that the first attempt to avoid the import duty consisted in replacing finished matches with splints and veneer, and when the latter were also included in the schedule of special duty, a fresh device was found to evade the duty by the importation of match logs, which has increased by leaps and bounds in the two years 1924-25 and 1925-26. It would be in keeping with the policy adopted by the Government of India in 1924, if they were to impose a special duty on match logs also to safeguard the interests of their revenue.

The fall in Government revenue may be attributed to—

- (1) the growth of the match industry based on Indian timber,
- (2) evasion of the duty by importation of match logs.

The former as a matter of fact, if at all, can account only for a very small portion of the decrease, while the latter is mainly responsible. If a special duty had been levied as was suggested at the time by the indigenous manufacturers Government would have been saved, we venture to observe, the loss of revenue. We therefore strongly urge the expediency of taxing imported match logs further, in addition to the existing *ad valorem* duty.

Another reason for the fall in Revenue is the suspected abuse of the right of transshipment of Native States. Matches are being imported to some of the Native States through their ports in a much larger quantity than the actual demand of those States and the excess quantities are sent to towns in British Territory a long way off from those States avoiding the custom duty legitimately due to the British Government.

(C)

(a) Considerable capital has been sunk in the match industry during the last five years or so. We are alive to the fact that large investments have been made in this direction by the Swedish American Trust who control important match factories in different parts of the world and are therefore keenly interested in importing foreign matches into India. They are essentially out in India with a view to avoid the Re. 1-8 duty and to exploit the country to their own advantage. We cannot for a moment conceive that the Government of India will tolerate the idea of exploitation of the country by the foreigners who are anxious in their own interests to kill the prospects of an indigenous Indian industry and are capable of bearing substantial temporary loss to ensure their ultimate gain. It would be a great catastrophe both for the ultimate revenue to Government and for the industrial benefits that could accrue to the people of India. We do not therefore consider that the investments contracted in India by foreign enterprisers, as opposed to the Indian interests, deserve any protective consideration whatsoever. At their best, the foreign investments were a gamble undertaken to ensure the ruination of India's indigenous interests and should therefore be treated as such.

(b) There are however certain Indian firms and individuals who have hitherto developed a business with the use of foreign timber. We however consider that every inducement and facility should be offered to such Indian firms and individuals to employ their enterprise in the interests of Indian timber by which measure a substantial impetus will be afforded to the indigenous industry and a consequential gain to the Forest and Railway Revenue, and to a large amount of labour that could be employed on works preceding the actual manufacture in a factory.

(c) In addition to the factories already in existence and actually working with the Indian timber there are many fresh ventures either under construction, or contemplation. We have no doubt whatsoever that in addition to large investments actually made on these constructions considerable sums of money have been spent by Indian enterprisers on preliminary investigations and enquiries.

(d) There has been a decided gain to the Indian Railway owing to the establishment of match factories using Indian wood. Factories based on imported wood, to thrive, must be located on or near seaports, and hence no freight on carriage of Match Timber, Chemicals, Paper, Fuel, and other imported stores, can normally accrue to the Railways from them. Factories using Indian timber must invariably be situated inland, and thus to ensure the delivery of various materials incidental to manufacture a decided Revenue accrues to the railway. With the growth of factories using indigenous timber the increased railway revenue will become an appreciable vested interest.

(e) With the increase in the requirements of timber there is bound to be an increase in the labour employed on its extraction, and with the propagation of suitable species of match wood and their extraction, the increased employment of labour will be a material factor for consideration. Every endeavour is being made in various quarters to place on the market at economic rates timbers which are suitable for match manufacture. We understand that there are in Northern India extensive plantations of suitable timbers in hand which in the course of 10 to 15 years would, it is hoped, be able to furnish timber of very superior quality to manufacture about 10,000 gross of matches a day. Undertakings of this kind will doubtless follow in quick succession in other provinces if only the Indian enterpriser has the guarantee of protection to see him successfully through the period of experiment and development.

(f) With the fixation of the Re. 1-8 duty in the normal course there should have been a tendency for the market rates to have risen. It is the Indian manufacturer that has ensured a further decrease in the price and has ensured to the consumer the rate of 3 pies per box. He has thus materially safeguarded the interests of the consumer, which can by no means be considered to be a negligible factor in the interests of the country.

(D)

We have discussed in a previous paragraph the difficulty under which the present Indian manufacturer is labouring in selling his goods against those imported or manufactured with imported logs. It will not be out of place to mention here that the actual fall of revenue due to the import duty is not so high as it appears to be. Match manufacture in India has increased the import of Chemicals, Papers, and Wood, etc., and has increased the consumption of wood from Government forests. The increased revenue on these heads considered along with its apparent fall on matches would show the figure much less. We do not consider it would in the circumstances be at all desirable or justifiable, at such a stage, to contemplate the taxation of the indigenous match industry with a view to make up the actual shortage of Government revenue. If our suggestions summarized at the close are agreed to, the Government will not only be safeguarding its own revenue, but very largely protecting the interests of the consumer. In the circumstances we consider that the question of taxing the indigenous industry does not arise.

It is an acknowledged fact that matches are more or less an indispensable necessity of life, and the match industry is of great economic importance, if India is to be self-contained. We are aware that with the expansion of the indigenous industry, there can be no danger of an undue rise in prices, as competitive conditions within the country will contribute to regulate the minimum price.

In addition to this, there is the important question of India being developed to be self-contained and self-dependent within the Empire. Want for this was prominently felt during the great war, and if on any grounds Great Britain is ever hereafter drawn into war with the match producing countries or there is any disturbance in the waters separating India from the foreign countries manufacturing matches, the condition of India would be pitiable, unless she has developed her indigenous resources and is self-contained. We believe it should be accepted as a principle that where the questions of the economic development of the internal resources of the Empire are concerned, and the conditions for the development of an industry are not unfavourable, the industry should as far as possible be adequately protected. There can be no gainsaying the fact that the indigenous match industry is decidedly one which comes under this category, and consequently any proposal for taxing it would be most detrimental to the interests of the country and the Empire.

The conclusions arrived at may be summed up thus:—

1. That the three conditions laid down in paragraph 97 of the Indian Fiscal Commission Report are satisfied in regard to the match industry and that the industry should be protected.
2. That the custom duty imposed at present on imported, finished matches, splints, and veneers, should be converted into a protective duty on the same scale.
3. That a suitable protective duty should be imposed on imported match logs.
4. That a suitable excise duty of not less than 8 annas per gross should be imposed on the production of factories of which three-fourths of the capital and Directors are not Indian.
5. That any fresh tax levied on the manufacturers using indigenous timber would be ruinous in the interests of the country.
6. That suitable measures should be adopted for increased facilities for Railway and Steamer transport of Indian match wood throughout the country.
7. That the import of foreign matches through Native States by transhipment methods requires very careful examination.

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Questionnaire issued by the Tariff Board on the 7th March 1927.

INTRODUCTORY.

1. When was the firm which you represent established? Is it a public or private registered Company, or is it an unregistered firm?
2. To what extent is the capital invested in your firm held by Indians? What is the total number of Directors and how many are Indians? How many Europeans are employed and in what capacities?
3. Does your firm undertake the manufacture of splints and veneers only or of matches and match boxes from splints and veneers made elsewhere, or do you undertake the whole process of manufacture?
4. At what date did the factory under the control of your firm commence to manufacture?
5. What is the full capacity of your factory as at present equipped for the manufacture of matches and boxes?
6. Please give the dimensions of the match boxes manufactured by you and the average number of matches in each?
7. What has been the actual output of your factory for each of the last eight years?
8. Where is your factory situated? Do you consider it is advantageously situated in respect of—
 - (a) vicinity to the areas from which your principal raw materials are drawn;

- (b) vicinity of fuel supply or other sources of power;
- (c) vicinity to an important market;
- (d) other considerations such as the existence of an abundant labour supply?

What do you consider the most important factor in selecting the site of a match factory in India?

9. (a) It has been stated that Indian manufactured matches are inferior to imported matches? Do you agree with this view? If so, please state in what respects Indian matches fall short of the standard of imported matches?

(b) Is there any prejudice apart from the question of quality against Indian matches either generally or in particular markets?

(c) What difference in price in your opinion represents a fair measurement of the difference in quality or would be sufficient to overcome the prejudice against Indian matches?

RAW MATERIALS.

Wood.

10. The principal raw material for the manufacture of matches and boxes is wood. Have you found it necessary to import wood for the manufacture of—

- (a) splints;
- (b) veneers;
- (c) packing cases?

If so, from what countries do you import and at what prices?

If possible give—

- (1) f.o.b. price per customary unit (in sterling);
- (2) port of importation;
- (3) freight, insurance, etc.;
- (4) landing charges;
- (5) transport charges to factory;
- (6) duty.

11. If Indian wood is used, please specify the kinds of wood used in the manufacture of—

- (a) splints;
- (b) veneers;
- (c) packing cases.

NOTE.—Both the botanical and the local names should be given.

12. Have you found Indian wood as satisfactory as imported wood for the manufacture of—

- (a) splints;
- (b) veneers;
- (c) packing cases?

If not, in what respects do you consider it inferior to imported wood?

13. What are your annual requirements of wood—

- (a) according to your present rate of output which should be stated?
- (b) according to the rate of output equivalent to the full capacity of the plant?

14. What quantity of wood is required for the manufacture of one hundred gross of boxes of finished matches?

15. What is the standard size of the packing case used by you? What quantity of wood is required for one packing case and how many gross boxes of matches can be packed in each case?

16. From what area or areas does the factory draw its main supplies of wood and at what distance from the factory are they situated? If possible, a map should be given showing the site of the factory and the areas from which supplies are drawn.

17. By what agency are the required trees felled and by what means are they transported from the forest to the factory?

18. What royalty is paid to Government or private persons for the wood extracted?

19. Please give the cost per 50 cubic feet delivered at the factory for the last four years under the following heads:—

- (1) Royalty.
- (2) Labour employed on extraction.
- (3) Freight to factory.
- (4) Miscellaneous charges.

20. What are the terms of your concession (if any) for the extraction of wood? Do you consider these terms favourable? If not, in what respect do you consider them unfavourable? Please supply a copy of your license or concession.

21. Have you found the supply of wood constant in respect of quality or have you noticed any deterioration? In the latter case, please explain the causes of deterioration.

22. Has the supply of wood been found constant in respect of quantity or has it been found necessary to draw supplies from greater and greater distances as time goes on? If so, do you consider the fact due to—

- (a) an increase in the output of the factory;
- (b) the establishment of other match factories which compete for the supplies of the same raw material;
- (c) a gradual diminution of the supplies from the areas from which they are taken;
- (d) any other cause?

23. If it has been found necessary to draw supplies from new areas, please state the total quantity taken from each area for the last four years. If possible, the cost per 50 cubic feet delivered at the factory of the wood supplied from each area should be given for each year.

24. Do you consider that your factory is assured of a sufficient supply of suitable wood for a reasonably long period? What measures have been taken to secure this object? In particular, have steps been taken to plant trees of a kind suitable for the match-making industry within a reasonable distance of your factory?

25. Do you receive any special concession in the matter of freight by sea, river or rail for wood required in your factory? Do you consider that you are at any disadvantage in this respect?

Other raw materials.

26. What raw materials other than wood are required in your factory and what is the total requirement of each in one year?

27. What quantity of each of these materials is required per 100 gross of boxes of matches?

28. Which of these materials are—

- A.—Imported from abroad.
- B.—Manufactured and purchased in India.
- C.—Manufactured by you from other materials?

In case A, please give—

- (a) country of origin,

- (b) f.o.b. price (in sterling),
- (c) port of importation,
- (d) freight, insurance, etc.,
- (e) landing charges,
- (f) transport charges to the factory, and
- (g) customs duty.

In case B, please give—

- (a) market price, and
- (b) transport and other charges,

and state where and by whom the materials are manufactured.

In case C, give particulars asked for under A or B for the materials purchased and the cost of manufacture by you according to the customary unit of production.

29. Which of the materials mentioned in the answer to question No. 26, if not already manufactured in India, are—

- (a) likely to be manufactured,
- (b) not likely to be manufactured.

Please give reasons for your reply.

LABOUR.

30. Is there any difficulty in securing sufficient labour for the extraction?

31. To what extent is the employment of skilled labour imported from abroad, necessary?

32. What number of imported labourers do you employ and what is their pay?

33. What progress has been made since the factory was established in the substitution of Indian for imported labour? What facilities are given to Indian workmen to acquire training in skilled work?

34. What is the total number of Indian workmen employed; how many of them are women and children; and what are the average rates of wages of the different classes?

35. Is the Indian labour drawn from the vicinity of the factory or from other parts of India?

36. Has it been found that the Indian labourer improves with training? Have you any record of output in your various departments which would indicate such improvements?

37. What arrangements have been made for housing your labour and for promoting its welfare in other directions?

POWER.

38. Is the power used in the factory derived from electricity or steam, or from some other source?

39. If electric power is used, from what source is it obtained and what is the cost per unit? How does the cost compare with the rates obtained elsewhere in India and in other countries?

40. If steam power is used, is coal the fuel employed? If not, what is the fuel? Is the latter available in sufficient quantities?

41. What is the total quantity of fuel required per unit of output whether for power production or for the other purposes?

If you purchase electric current from an outside supply, please give also the number of units required per unit of output in addition to the fuel used.

42. From what distance is the fuel brought, and what is the free-on-truck price in the case of coal, and in the case of other fuel at the source of supply? And what is the cost of transport per ton in each case? If fuel is purchased locally, what is the price per ton delivered at the factory?

43. If your fuel is wood, are you able to meet the whole of your requirements from waste wood in your factory? If not, have you obtained any concession from the Government or other person? What is the royalty payable, and what are the conditions of the concessions? (Supply a copy of your concession.)

MARKET.

44. If possible give an estimate of the total Indian demand for matches.
45. Is the demand likely to increase substantially in the near future? If your answer is in the affirmative, please state your reasons.
46. In what parts of India are your principal markets situated and what are the distances which separate them from the factory?
47. Are there any markets in India in which owing to their distance from the ports, you are more easily able to compete against the foreign manufacture? If so, please state which these markets are and the approximate demand in each?
48. (a) To what extent is the market served by imported matches distinct from that served by matches manufactured in India?
- (b) Have you any reason to suppose that there is any illicit importation of matches into India?

COMPETITION.

49. Which are the foreign countries from which competition in the Indian markets is keenest?

50. With the existing duty do imported matches compete with Indian matches manufactured from indigenous woods or only with Indian matches manufactured from imported woods?

51. Please state—

- (1) the price at which imported matches entered the country and had been sold during each of the years 1918-22 and 1922-26;
- (2) the prices realized in the same years for your matches made from Indian wood;
- (3) the prices realized for Indian matches manufactured from imported wood;

If possible the *f.o.b.* price in sterling of imported matches should be given and the following items shown separately:—

- (1) freight;
- (2) insurance and trade charges;
- (3) customs duty;
- (4) landing charges.

If this is not possible, then state the *c.i.f.* price plus customs duty and landing charges.

52. From what sources is information obtainable as to the prices at which imported matches enter the country?

53. Have you any reason to suppose that prices at which foreign producers sell for export to India (a) are unremunerative or (b) leave only a small margin of profit to the producer, or (c) are exported at a price below the lowest price current in the home market? If so, please state fully your reasons and the evidence on which you rely.

54. Do you consider that as compared with the foreign manufacturer the Indian manufacturer is at a disadvantage in all or any of the following points:—

- (a) cost of plant and machinery;
- (b) cost of expert labour;
- (c) cost and efficiency of ordinary labour;
- (d) the collection and transport of raw materials;

- (e) cost of stores;
- (f) freights on finished goods;
- (g) maintenance of stocks of spare parts or of wood;
- (h) customs duty on imported materials;
- (i) the raising of capital?

55. Which of the disadvantages mentioned in your answer to question No. 54 do you regard as permanent and which as temporary? For what period in your opinion are the temporary disadvantages likely to operate?

EQUIPMENT.

56. 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.

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

58. (a) 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.

(b) If your machinery has been purchased under any special arrangements with foreign manufacturers, please state in detail what these arrangements are?

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

(b) What are the chief processes in the manufacture of matches and match boxes which are carried out by manual labour in your factory? Please give, if possible, an estimate of the relative cost of carrying out these processes by hand and by machinery under present conditions?

60. Do you contemplate either:—

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

If so, please give particulars?

61. What parts of the machinery, if any, are made in India?

CAPITAL ACCOUNT.

62. 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?

63. Do the figures given in answer to question No. 62 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.

64. 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?

65. What do you estimate would be the present-day cost under the heads (a) building 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?

66. Give brief particulars of the sums spent on the purchase of plant and machinery in each of the years 1917 to 1926, and the rate of exchange at which funds were remitted.

67. What is the total (a) authorized, (b) subscribed, (c) paid-up, capital of the Company? How is it divided between Preference, Ordinary and Deferred shares?

68. At what rate of interest is the dividend payable on the Preference shares? Are these shares entitled to cumulative dividends? If so, state the dates on which they were first entitled to rank for dividends and whether any dividends are in arrears?

69. Under what conditions do the Deferred shares participate in the profits of the Company?

70. Please prepare a statement showing for each year since the establishment of the Company:—

- (a) the amount of the paid-up share capital (Preference, Ordinary and Deferred) ranking for dividend;
- (b) the actual amounts distributed as dividends on each class of capital, and
- (c) the percentage on the paid-up share capital of each class which the dividend represented.

71. What is the average rate of dividend on the Ordinary shares for the full period?

72. What is the amount of the debenture loans (if any) raised by the Company? At what dates were they issued, and what is the rate of interest payable? If any period has been fixed for the redemption of the debenture loan, it should be stated. Similarly, if a debenture sinking fund has been established, the annual rate of contribution should be given.

73. What is the amount of the Reserve Fund (if any) created by the Company? Has this amount been accumulated from surplus profits, or from other sources, *e.g.*, by the issue of shares at a premium?

74. What additional capital (if any) would it be necessary to raise in order to carry out any scheme of replacement or extension of plant which the Company contemplate?

WORKS COST.

75. Please fill up the two forms annexed to the questionnaire regarding works costs?

NOTE.—The Board are anxious to have as full information as possible regarding the cost of production, but they recognise the difficulty which manufacturers may feel in disclosing to the public the details of their practice and their works costs. Great stress was laid on the importance of publicity in paragraph 303 of the Fiscal Commission's Report, and the Board also have explained the views they hold in paragraph 41 of their Third Report on the Grant of Protection to the Steel Industry. It rests with the manufacturers themselves to decide what information can be given publicly, and nothing will be published which the witness desires to be treated as confidential. At the same time, the Board cannot base their recommendations merely on confidential information. The publication of the details of the works costs of each firm may not be essential because the Board may be able by comparison of the various figures submitted to arrive at a standard or average figure for each item. But it is very desirable that the total of the works costs should be disclosed in all cases.

76. Was the works cost increased in any of the years for which figures have been given owing to the fact that the factory was working at less than its full capacity? If so, which were the items principally affected? To what extent would they probably have been reduced if a full output had been obtained?

77. Have you adopted a system of cost accounting? If so, will you place before the Board, for examination and return, your cost sheets for the last complete year for which they have been prepared?

78. Are you in a position to furnish the Board with information as to the works cost of matches in any competing country for any year since the war?

OVERHEAD CHARGES.

(i) *Depreciation.*

79. What are the rates of depreciation allowed by the Income-tax authorities? Do you consider that, in calculating the cost of production of matches, these rates of depreciation are suitable? If not, what rates do you suggest, and why?

80. What is the sum required annually for depreciation at Income-tax rates on the total block account—

- (a) if the assets are valued at cost,
- (b) if the assets are taken at their value after deducting all depreciation written off up-to-date?

(ii) *Working Capital.*

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

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

82. 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?

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

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

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

86. 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.

(iii) *Agents' Commission and Head Office Expenses.*

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

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

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

89. How is the amount of the Agent's commission determined?

90. What is the amount of—

- (i) Head office expenses,
- (ii) Agent's commission,

per gross of finished matches according to—

- (i) the present output;
- (ii) the output equivalent to the full capacity of the plant?

MANUFACTURER'S PROFITS.

91. What rate of dividend do you consider a fair return on ordinary and deferred shares?

92. If your Company contemplated the establishment of a new match factory, or the purchase of new machinery for the existing factory—whether by way of extension or replacement—what rates of interest do you consider it would be necessary to offer on (a) Preference shares and (b) Debentures in order to attract capital, assuming that the profits made in the industry showed a substantial margin after providing the interest on the existing shares or debentures?

93. If it were decided to issue ordinary shares, what do you consider would be minimum probable return which would be likely to attract investors?

CLAIM FOR PROTECTION.

94. In paragraph 97 of their Report, the Fiscal Commission laid down three conditions which in ordinary cases ought to be satisfied by industries claiming protection. Do you consider that these conditions are satisfied in the case of the Match Industry? And in particular:—

A.—Do you claim that the industry possesses natural advantages, such as an abundant supply of raw materials, cheap power, a sufficient supply of labour or a large home market?

B.—Do you claim that, without the help of protection, the industry is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country?

C.—Do you claim that the industry will eventually be able to face world competition without protection?

These conditions have been approved by the Government of India and by the Legislative Assembly, and it is therefore of great importance to ascertain whether they are satisfied. If you consider that the Match Industry fulfils these conditions the reasons for your opinion should be fully explained.

95. Do you claim that the Match Industry satisfied either or both of the conditions mentioned in paragraph 98 of the Fiscal Commission's Report, viz. :—

(a) That the industry is one in which the advantages of large scale production can be achieved, and that increasing output would mean increasing economy of production.

(b) That it is probable that in course of time the whole needs of the country could be supplied by the home production.

96. Do you consider that there are any features of the industry which make it peculiarly suitable to Indian economic conditions?

97. What is the amount of protection the industry receives at present owing to—

(a) the existing Customs duties,

(b) transport charges between the country of production and the port of entry, i.e., freight, insurance, trade charges and landing charges?

98. What is the amount of the protection which you consider necessary?

NOTE.—The reasons for proposing the particular rate recommended should be explained.

99. Do you recommend any form of assistance other than a protective duty? If so, your reasons should be stated.

FORM I.—Statement showing total expenditure on the production of Matches during the last four years.

(See question 75.)

	1922-23.	1923-24.	1924-25.	1925-26.
1. Cost of wood for splints and veneers.				
2. Cost of paper				
3. Cost of chemicals				
4. Cost of other raw materials				
5. Factory labour				
6. Power and fuel				
7. Ordinary current repairs and maintenance of buildings, plant and machinery.				
8. General services, supervision and local office charges.				
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc.				
10. Cost of packing cases . .				
Total				
Total production of Matches for the year.				

FORM II.—Statement showing works cost per gross of Matches.

(See question 75.)

	1922-23.	1923-24.	1924-25.	1925-26.
1. Cost of wood for splints and veneers.				
2. Cost of paper for labels and wrapper.				
3. Cost of chemicals . . .				
4. Cost of other raw materials				
5. Factory labour				
6. Power and fuel				
7. Ordinary current repairs and maintenance of buildings, plant and machinery.				
8. General services, supervision and local office charges.				
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc.				
10. Cost of packing cases . .				
Total				
Credit for materials recovered (if any).				
Net Total				
Total production of Matches for the year.				

The Assam Match Co. Ltd., Dhubri.

Letter dated the 24th March 1927.

This merely serves to advise that your questionnaire has been forwarded to our Managing Director in Bombay with the request that he will kindly communicate with you direct in the matter.

Jalpaiguri Industries Limited, Bengal, Match Factory Department.

Letter dated 5th April 1927.

We have the honour to submit the following replies to your questionnaire on the subject of protection to match industry, enclosed in your letter No. 209, dated Rangpo, the 7th March 1927.

1. "Jalpaiguri Industries Limited" which we represent was established in 1925. It is a registered public Limited Company.

2. The share capital subscribed is entirely Indian. The total number of Directors is seven, all of them being Indians. No European is employed in any capacity.

3. We undertake the whole process of manufacture. We cut our own splints and veneers from local indigenous wood.

4. The factory owned by this Company was established towards the later part of 1926, and the manufacture of matches commenced from January 1927.

5. The cutting machines are sufficient to produce veneers and splints for two hundred gross of matches per day of eight hours, but the finishing machines can cope with only forty gross of matches.

6. Full size match box. Dimensions $2\frac{5}{8}$ " \times $1\frac{7}{8}$ " \times $1\frac{1}{8}$ " 80 to 90 sticks per box.

7. Does not arise.

8. The factory is situated in the Town of Jalpaiguri, Bengal. It is advantageously situated in respect of (a), (b), (c), (d). The most important factor in selecting the site of a match factory is the vicinity of, or easy and cheap, communications with the area from which match wood is to be drawn, such area containing sufficient match wood to give the factory a regular and uninterrupted supply.

9. (a) Indian manufactured matches are inferior to foreign, particularly Swedish matches in so far as—

(i) Splints and veneers are of dark colour and are of an inferior finish to Swedish matches.

(ii) Swedish matches are impregnated while Indian matches are not so.

(iii) Swedish matches ignite with silent explosion and maximum flame while Indian matches ignite with noisy explosion and rapid but low flame.

(b) We do not think that generally speaking at the present time there is any other prejudice apart from quality (as enumerated above) against Indian matches.

(c) We think a difference of annas nine per gross or three pice per dozen would be sufficient to overcome the prejudice against Indian matches.

10. (a), (b), (c). No.

11. (a) Simul (*Bombax Malabaricum*).

Kadam (*Anihocephalus Cadamba*).

(b) Simul.

(c) We are not making any packing cases just now; but in case necessity arises for such we propose to use Simul.

12. We have not used imported wood, but from matches turned out by Calcutta Factories using foreign wood, we are of opinion that imported wood is better than Indian wood in colour and strength.

13. (a) 5,000 c.ft. of wood.

(b) 25,000 c.ft. of wood.

14. About 40 c.ft. of wood.

15. Does not arise as we have not been making any packing cases as yet.

16. The principal areas from which supplies of wood are obtained are:—

(a) *Baikunthapur Forest*.—At a distance of ten to thirty miles from the town of Jalpaiguri to the north and is connected with the latter by the river Teesta navigable throughout the year, as also by District Board Roads which can be used throughout the year up to a distance of 14 miles from the town.

(b) *Berubari Forest*.—At a distance of 10 to 15 miles from the town of Jalpaiguri to the south and is connected with the latter by means of District Board Road which can be used throughout the year.

17. At present we are using Berubari Forest. Contracts have been made with certain cartmen of the locality for felling the trees and sending the same to the Factory in their carts.

18. Royalty paid to private owners is annas five per c.ft. on the average.

19. We can give only the rate at which we have been working for the last four months:—

	Rs.	A.	P.
Royalty for 50 c.ft. at annas five per c.ft.	15	10	0
Felling and extraction at Re. 0-1-6 per c.ft.	4	11	0
Cart hire, etc. at Re. 0-3-6 per c.ft.	10	15	0
	31	4	0

or at annas 10 per c.ft. at the factory.

20. We get no concessional rate. The schedule of rates at the Baikunthapur Forest is already very high being on an average at annas 5 per c.ft. excluding costs of felling and extractions, and so will act to our detriment in competing with big factories of Calcutta who get their wood at much cheaper rates.

21, 22, 23. From our short experience we are not in a position to answer these questions.

24. Yes. Baikunthapur Forests are amply provided with suitable match wood.

(b) and (c). No steps have been taken.

25. No. We do think that the present railway freight for wood is prohibitive. A big factory of an output of one thousand gross per day can be run at Jalpaiguri, being fed by supplies from Government Forests of Jalpaiguri, Kurseong, and Kalimpong Divisions, provided concessional rates for carriage of match wood be granted by B. D. Railway, E. B. Railway and D. H. Railway.

26. Other raw materials are paper, chemicals, glue, paraffin, coal and wood fuel.

27. For 100 gross of matches:—

Paper for wrapping inner and outer boxes (demy size blue paper)	30	quires.
Paper for making dozen packets (black double demy paper)	5½	quires.
Paper for making ¼ gross packets (Kraft double royal paper)	2½	quires.
Chemicals for tipping	32	lbs.
Chemicals for side painting	5	lbs.
Glue	4	lbs.
Paraffin	4	lbs.
Coke	20	lbs.
Kerosine oil for the engine	2	gallons.

G 2

28. We buy these things generally from Calcutta market.

Chemicals.

	Rs.	A.	P.		
Potash Chlorate at	28	0	0	per cwt.	} Railway freight from Calcutta to Jalpaiguri at Rs. 1-12-1 per maund by goods train and Rs. 3-8 per maund by parcel train.
Sulphur Powder at	12	8	0	" "	
Red Phosphorus	2	0	0	" lb.	
Bychromate of potash	40	0	0	" cwt.	
Ferric Oxide at	14	0	0	" "	
Manganese Dioxide at	14	0	0	" "	
Glass powder at	9	8	0	" "	
Lamp black at	0	12	0	" lb.	
Sulphide of antimony	42	0	0	" cwt.	
Glue at	56	0	0	" "	
Paraffin at	0	4	0	" lb.	} Railway freight annas 11-5 per goods and Rs. 3-4 per parcel train.
Wrapping paper	0	6	0	" "	
Packing paper at	0	8	0	" "	

All these are subject to further charges under headings forwarding, packing, V. P. commission, postage, cartage, loading, and unloading at Calcutta and Jalpaiguri, etc., involving altogether annas four to the rupee over and above the Calcutta rates in reaching the Factory at Jalpaiguri.

29. Considering the many industries which are establishing themselves in recent years in India we are very hopeful that papers, chemicals and other raw materials will be manufactured in India if a sufficient and continued demand for them be created by setting up an appreciable number of match factories within the country.

30. No.

31—32. None.

33. Since the very beginning the labour employed has been entirely Indian and by gradual experience they are acquiring the requisite skill.

34. There are 22 paid workmen in all. Of these 8 are boys. No women have been employed. Men are paid on an average Rs. 25 per month and boys Rs. 12 per month.

35. Labour drawn entirely from the vicinity of the factory.

36. Yes.

(b) Yes. Box wrapping, box filling, packetting, labelling all these, are done manual labour, and the workmen have shown distinct and marked improvements, both as regards quality and quantity on practice. Other departments involving machine work give the same indications.

37. Labour is partly residential. They have been supplied with free well ventilated, corrugated tin roofed houses, free fuel and medicines and good drinking water.

38. We use one oil engine consuming kerosine oil.

39. Does not arise.

(b) We do not know.

40. Does not arise.

41. Oil fuel for the engine at 12 lbs. per gross, coal fuel for other purposes at 2 lbs. per gross.

42. Fuel purchased locally. Kerosine oil at Rs. 4-4 per tin of 4 gallons at the factory. Coal (coke) at Re. 1-1 per maund at the factory.

43. Does not arise.

44. We do not know for certain. We presume it is nothing less than 15,000,000 gross in the year.

45. We are not in a position to forecast this.

46. Our prospective market is the whole of Rajshahi Division, particularly the districts of Jalpaiguri, Darjeeling, Rangpur and Dinajpur, all within a distance of less than 100 miles by railway from the town of Jalpaiguri where the factory is situated.

47. The places mentioned above are at a distance of more than 300 miles from Calcutta which is the nearest port where matches are imported or manufactured. The districts of Jalpaiguri and Darjeeling consume more than 6,000 gross of matches per month.

48. (a) In these districts (Jalpaiguri, Darjeeling, Rangpur and Dinajpur) about 40 per cent. of total matches put up for sale are imported brands as distinct from matches manufactured in India.

(b) We have seen in newspaper reports that there is a strong rumour of matches and splints (in order to avoid duty) being smuggled through ports belonging to Native States. Although for ourselves we have no information about it.

49. Sweden undoubtedly, and Japan to a certain extent.

50. The competition is between imported matches and matches manufactured in India from imported woods on the one hand and Indian matches manufactured with indigenous wood on the other.

51. (i) The prices of imported matches varied between Rs. 2-14 at the highest in 1922 per gross down to Rs. 2-7 at the lowest in 1926.

(ii) In the same period Indian matches sold at Re. 1-14 at the highest down to Re. 1-3 at the lowest.

(iii) Indian matches manufactured from imported wood varied from Rs. 2-14 at the highest down to Re. 1-12 at the lowest.

52. Director General of Commercial Intelligence.

53. We have no information.

54. (a) Yes.

(b) Yes.

(c) Yes, at present.

(d) Yes, every raw material except wood is indented from foreign countries to Calcutta and we get the same from Calcutta to Jalpaiguri involving many extra charges over the original cost.

(e) Yes. The same difficulty as in (a).

(f) Yes. Freight by railway and steamer service is very high.

(g) Yes. On account of lack of adequate finance. -

(h) Yes.

(i) Yes. This is the greatest difficulty as we have emphasised in our written statement paragraph 2 closing portion.

55. (a) Temporary. Serviceable match machines are already being manufactured in India and we may confidently look forward to a not remote time when India will be in a position to make all her match machines.

(b) and (c) Temporary. As labour both rank and file will improve with time and experience.

(d), (e) and (f). Will be relieved to a very great extent if railway and steamer services introduce concessional rates for the industry.

(g) and (i) If the existing or recently started factories can be run on successfully for a number of years so as to create the confidence of investing public in the future of this industry as a sound commercial proposition then difficulties about these items will surely be removed.

(h) It is a matter for Government.

It will take at least ten years if not more to overcome these difficulties as we have tried to prove in the concluding part of paragraph 2 of our written statement.

56. Ours is a small concern run to a great extent on cottage industry lines. In our opinion a factory equipped with machinery and appliances sufficient for an output of 250 gross per day will be the smallest unit for economical production under present day condition.

57. Slightly over 50 per cent. of the total outlay has been incurred in plant and machinery.

58. (a) One 6 B. H. P. Kerosine oil engine	American.
One Double Geer peeling Machine	Indian.
One Single Geer peeling Machine	Do.
One Splint Chopper	Do.
One Veneer Chopper	Do.
One Polishing Drum	Do.
One Centrifugal Machine (for bleaching)	Do.
One Levelling Machine	Do.
One Paraffin Hearth	Do.
One Dipping apparatus	Do.
One Splint cleaning machine	Japanese.
One Frame filling machine	Do.
One Frame Emptying machine	Do.

These have been brought into use since January 1927.

(b) No.

59. (a) No. Our machinery and equipment are too poor and we have to depend largely on expensive and untrained hand labour and plenty other drawbacks which increase our cost of production. At present we cannot compete if the present duty is not maintained and an excise at at least annas nine per gross be not imposed on the products of factories in India financed by foreign capital.

(b) There are some machines used specially for drying, box filling, side painting, packetting, sawing, barking, inner and outer box pasting, etc., which owing to their prohibitive cost we have not been able to introduce in our factory. The operations involving these machines are therefore done by manual labour and so we are unable to state the comparative costs of these operations by hand and machine work. We are, however, giving below the rates we are paying for manual work:—

Box wrapping	Rs. 1-4-0 per thousand.
Box labelling	Re. 0-4-0 Do.
Box filling	Rē. 1-0-0 Do.
Box side painting	Re. 0-0-6 per gross.
Box packetting	Re. 0-1-0 Do.
Log sawing	Re. 0-1-0 per section.

60. (a) No.

(b) Yes. A machine saw for log cutting; one labelling machine; one splint selecting machine.

61. None of the machines referred to above is made in India.

62. (a), (b) None.

(c) Building, Rs. 3,934-14-0.

(d) Plant and machinery, Rs. 8,950-7-6.

(e) Stores, furniture, implements, etc., Rs. 1,059-2-9.

63. Actual cost. There has been no depreciation fund.

64, 65, 66. Does not arise.

67. (a) Authorised capital Rs. 50,000.

(b) Subscribed capital Rs. 32,410.

- (c) Paid up capital Rs. 16,037.
 All ordinary shares.
 68, 69, 70, 71, 72, 73, 74. Does not arise.
 75. Follows on page
 76. Does not arise.
 77. No. We, however, know how we stand by periodical stock taking.
 78. We have no information.
 79. Facts not available.
 80. Does not arise.
 81. (a) Rs. 2,500.
 82. It is found necessary to borrow the working capital.
 83. The amount borrowed up till now is Rs. 1,500 at 9 per cent. per annum.
 84. Working capital at Rs. 2,500 to works cost at Rs. 800 per month or the former is about three times the latter.
 85. About Rs. 1,000; about three months after delivery.
 86. Not cold. Wood to the average value of Rs. 200 has got to be kept in stock.
 87. Head Office and the office of local management are the same.
 (b) Yes.
 88. (i) Head office expenses Rs. 360 per annum.
 (ii) Managing Agent's commission Rs. 360 per annum.
 Selling Agents' commission at one anna 6 pies per gross.
 89. Managing Agent's remuneration has been fixed at Rs. 30 per month.
 90. (i) 6 pies to the gross. Head office expense.
 (ii) Two annas per gross. Managing and Selling Agents' commission per gross of finished matches according to the present rate of output.
 91. Ten per cent. on ordinary shares.
 92. Does not arise.
 93. Does not arise, as the authorised share capital has not yet been subscribed in full.
 94. Yes.
 A, B, and C. Yes. We have explained these in our written statements paragraphs 1 and 2.
 95. (a) and (b) Yes.
 96. Yes. *Vide* our written statement paragraph 1, sub-heading (e).
 97. (a) Re. 1-8 per gross on finished matches. Re. 0-4-6 per lb. of splints. Re. 0-6-0 per lb. of veneer per boxes.
 (b) We do not know. We opine they are not at all excessive.
 98. The retention of the existing duty on matches, splints and veneers. Levying of import duty on wood imported as logs (if such duty is not already existent) in proportion to its splints and veneers manufacturing contents. For reasons *vide* our written statement already submitted as also the views expressed by the Indian Match Manufacturers Association in their letter No. 527, dated 18th October 1926 to the Commerce Department, Government of India.
 99. (i) Excise at the rate of annas nine per gross on the products in India of factories financed by foreign capital.
 (ii) The existing freight on the carriage of matches, match chemicals, match papers, etc., and matchwood and other raw materials for the manufacture, is a great burden and the Railway and Steamship Company be moved to grant facilities in this matter.
 (iii) Everything should be done to prevent anything of the nature of monopoly or cornering the market in the matter of wood.

75. Form I.—Showing total expenditure on the production of matches during the months of January to March 1927.

	Rs. A. P.
Item 1	335 0 0
„ 2	210 0 0
„ 3	347 0 0
„ 4, 6, 7, 9	345 0 0
„ 5 and 8	720 0 0
TOTAL	1,957 0 0

Total production of matches in the three months—1,150 gross.

75. Form II.—Statement showing works cost per gross of matches.

	Rs. A. P. per gross.
Item 1	0 4 0
„ 2	0 3 0
„ 3	0 4 0
„ 4	0 1 6
„ 5	0 11 0
„ 6	0 1 0
„ 7, 8 and 9	0 2 6
Net total	1 11 0

Total production of matches for the three months—1,150 gross.

The Bhagirathi Match Factory, Bengal, Calcutta.

Letter, dated the 19th April 1927.

We beg to submit herewith 7 sets of our answers to the questionnaire issued by you in connection with the enquiry into the claims of the Indian match industry to protection which your Board is now engaged in. As we started work only a few months ago it has not been possible for us to answer some of the questions. The particulars asked for under Table I of the appendix to the questionnaire cannot for the same reason be furnished by us.

In this connection we beg to submit that if required we shall be prepared to give oral evidence on any points that may not have been made clear in our written statement and in the accompanying answers to your questionnaire.

Answers to questionnaire regarding Match Industry.

1. The firm was established in February 1926. It is a private firm.
2. There is neither any foreign capital nor any European employee in our factory.
3. The firm make complete matches from veneers and splints manufactured in our own factory.
4. The factory commenced manufacturing from the middle of November 1926.
5. The present capacity of the factory is about 200 gross full sized complete matches per diem.
6. Full size with about 90 matches in each box.

7. About 500 cases during the last 5 months.
8. 1, Jogen Bysack Road, Barnagore (24-Parganas).
- (a) No, as heavy cartage is being paid to draw raw materials from Calcutta.
- (b) Yes, in respect of electric power.
- (c) Yes.
- (d) No. Great difficulties are experienced in getting a good number of trained labour.
9. Yes, mainly in splints and partly in box veneers. Regarding chemicals though we are improving it will still take some years to reach the standard of foreign matches. There are difficulties also in securing good raw materials.
- (b) There are prejudices in favour of white splints against the dark ones.
- (c) People will pay 1½ pice for a box of imported matches (with white splints) but a pice for the native matches.
10. Though we are not importing foreign timber, we are keenly feeling the need in view of the demand for white splints.
11. We generally use Gnwa (*Excoccoria Agallocha*) for all purposes.
12. No. In strength, colour and quantity (one cubic foot of Aspen timber imported from Japan gives sufficient quantity of splints and veneers for about 5 gross of full sized matches against 2 gross obtainable from Gnwa wood of average girth).
13. About 700 tons per year.
14. 50 cubic feet.
15. 2' 1" x 2' 1" x 3' 3" for 50 gross full sized matches. We generally buy ready made boxes from saw mills.
16. We generally buy from Ultadingi market. The distance is about 4 miles from our factory.
17. See above.
18. We buy wood from Ultadingi market. We understand that a royalty of Rs. 4-11 is paid to Government for 100 maunds of wood.
19. (3) About Rs. 8 per ton; (4) About Rs. 2 per ton.
20. As we buy wood from Calcutta market, the question does not arise.
21. No. Match manufacturing requires green wood and wood generally keeps green up to a month from the date of felling; with longer delay it becomes dry and unsuitable. Owing to the difficulties of the waterways and dependence on wind, the wood is apt to arrive too dry. Power-driven boats and regular dredging are absolutely needed.
22. No. Sometime scarcity of wood is felt for days together.
- (a) We do not know.
- (b) Partly true.
- (c) We do not know.
- (d) Owing to its very large use for other purposes.
23. We do not know.
24. (a) We believe that if the Gnwa wood is reserved exclusively for manufacturing matches, it may be assured of a sufficient supply for a considerably long period.
- B. and C. We do not know.
25. (a) No.
- (b) Yes, we consider that the present freight charged by Railways and Steamship Companies for the carriage of wood to be excessive.
26. Raw materials, besides wood and the total requirement of each per annum is given below against each item.
- | | |
|------------------------------------|----------|
| (1) Chlorate of Potash | 10 tons. |
| (2) Bichromate of Potash | 1 ton. |

(3) Ferric Oxide	1 ton.
(4) Manganese Dioxide	4 tons.
(5) Sulphur	1½ tons.
(6) Lamp black . . . . .	.6 cwts.
(7) Glass powder	5 tons.
(8) Sulphide of Antimony	1½ tons.
(9) Umber	½ ton.
(10) Red Phosphorus	1 ton.
(11) Zinc Oxide	½ ton.
(12) Gum . . . . .	.5 cwts.
(13) Glue . . . . .	.5 cwts.
Gellatine	3 tons.
(14) Paraffin	12 tons.
(15) (a) Inner pasting paper	3½ tons.
(b) Outer pasting paper	2½ tons.
(c) Dozen packing	6 cwts.
(d) Gross packing	3 tons.

27. (1) to (15) (d).

	lbs.	
(1) Chlorate of Potash	30	C. Rs. 25 per cwt.
(2) Bichromate of Potash	3	C. Rs. 56 per cwt. (powdered)
(3) Ferric Oxide	5	C. Rs. 15 per cwt.
(4) Manganese dioxide	12	C. Rs. 15 per cwt.
(5) Sulphur	4	C. Rs. 14 per cwt.
(6) Lamp black	1	C. Rs. 112 per cwt.
(7) Glass Powder	14	C. Rs. 9 per cwt.
(8) Sulphide of Antimony	4	C. Rs. 70 per cwt.
(9) Umber	2	C. Rs. 56 per cwt.
(10) Red Phosphorus	3	C. Rs. 224 per cwt.
(11) Zinc Oxide	2	C. Rs. 28 per cwt.
(12) Gum	2	C. Rs. 56 per cwt.
(13) Gellatine	8	C. Rs. 84 per cwt.
(14) Paraffin	25	C. Rs. 28 per cwt.
(15) (a) Inner pasting paper	14	C. Rs. 23-12 per cwt.
(b) Outer pasting paper	8	C. Rs. 23-12 per cwt.
(c) Dozen packing paper	2	C. Rs. 28 per cwt.
(d) Gross packing paper	10	C. Rs. 19-2 per cwt.

N.B.—The above quantities are for 100 gross full sized matches.

28. (A) All the materials are generally purchased from Calcutta.

(B) (a) Market prices have been quoted against each item on the previous page.

(b) Cartage, loading and unloading are paid at Rs. 6 per ton.

29. We do not know.

30. *Vide* our answer to question 16.

31. We can hardly afford to pay for foreign labour. Indian labour, if properly trained, becomes efficient.

32 and 33. We do not employ any imported labour and hence these questions do not occur.

34. About 100 in all, out of which 50 are men, 35 women and 15 boys. Men at Re. 1 to Re. 1-8; women at 12 annas to Re. 1; boys at 8 annas to 12 annas per head per diem.

35. About 25 per cent. local and 75 per cent. from outside Bengal.
36. *Vide* our answer to question 31.
- (b) No.
37. They generally make their own housing arrangement.
38. Electric power.
39. Current is supplied by the Calcutta Electric Supply Corporation, Limited.
- (b) The cost is 2 annas per unit.
- (c) We cannot say.
- 40 and 41. *Vide* answer to question 39.
- 42 and 43. Fuel is partly supplied by waste wood and partly by coal. Coal is generally purchased from Ultadingi at 10 annas per maund.
44. We do not know.
45. We are unable to forecast this.
46. We generally sell our matches in Calcutta.
47. Practically no.
48. (a) and (b) We do not know.
49. Japan and particularly Sweden.
50. The serious competition is from Indian matches manufactured with imported wood.
51. We do not know.
52. The Government Commercial Intelligence Department may be consulted.
53. We do not know. But this seems to be their trade secret.
54. (a) Yes.
- (b) Yes.
- (c) Our labour is dear as estimated by its output.
- (e) Same disadvantage as in respect of machinery.
- (f) Yes, freight is one of our main cause of grievance.
- (g) Shortage of capital is commonly a difficulty in this respect.
- (h) Yes.
- (i) Our greatest difficulty. It may take some couple of decades to overcome these difficulties.
55. (a) Temporary, till we manufacture more in India.
- (b) Temporary, till we train sufficient number of labour.
- (c) Ditto.
- (d) Temporary, till Railway and Steamship Companies give concessions.
- (e) Same as above.
- (f) *Vide* our answer to (d).
- (g) If suitable measures are adopted to establish confidence in the future of the industry, this will improve.
- (h) This is a matter for Government.
- (i) See answer to question (g).
- A couple if decades may be necessary to overcome these difficulties.
56. No. A factory equipped with up-to-date machinery and appliances, sufficient to manufacture 1,000 gross of matches per diem, can in our opinion, be operated economically under present day conditions.
57. About 45 per cent.
58. (a) One peeling and chopping for splints (Japanese—Imafukur).
- (b) One water grinding stone (Japanese—Imafukur).
- (c) One peeling and chopping for outer boxes (Indian—Bhowani Engineering and Trading, Calcutta).

- (d) One peeling and chopping for inner boxes (Indian—Bhowani Engineering and Trading, Calcutta).
 (e) One automatic grinder.
 (f) One Emery grinder.
 (g) One splint polishing drum.
 (h) Two exhausters and blowers for box drying.
 (i) One outer box pasting machine (Borrman—German).
 (j) Three inner box pasting (one by Borrman and 2 by Arhens, Sweden).
 (k) Two box labelling (one Kirao and one Maidzemi both of Japan).
 (l) Two splint selecting (Hirao—Japan).
 (m) Two splint sieving (Bhowani Engineering and Trading Company, Calcutta, India).
 (n) Two splint labelling (Hirao—Japan).
 (o) Four frame filling (Hirao—Japan).
 (p) Two emptying (Hirao—Japan).
 (q) Paraffining apparatus (Maidzeni—Japan; One heating apparatus—Indian).
 (r) Dipping (Bhowani Engineering and Trading Company, Calcutta, India).
 (s) Chemical mixing (Hirao—Japan).
 (t) Cone grinder (German).

All the above machinery came to be used from when the factory was started.

B. Practically nothing.

59. No. If the present duty is not maintained and an excise at 8 annas at least per gross be not imposed on the products of factories financed by foreign capital, it would be practically impossible for Indians to compete successfully with the foreign manufacturers in India.

(b) Side-painting; box filling, packetting, dipping, paraffining; outer and inner box pasting. We can hardly obtain half the quantity of inner and outer boxes required by us by machine—the rest is to be had by hand pasting. The hand pasted boxes are badly finished and are much inferior to those done by machine. Moreover, the hand process costs us more by Re. 0-1-6 per gross, but matches filled in these boxes fetch us 2 annas less than those boxed in machine pasted ones. Regarding the relative cost of other machines we are unable to give any idea.

60. (a) and (b) No.

61. *Vide* our answer to question 58 (A).

62. As our factory commenced manufacturing only 5 months ago it is difficult to give quite accurate figures under all headings. Some works are still under construction. The figures given below are, however nearly accurate:—

	Rs.
(a) and (b)	1,000
(c)	10,000
(d)	35,000
(e)	4,000

63. The above figures do not represent the entire cost. We have no provision for any depreciation fund.

64. *Vide* our answer to question 63.

65. Costs more owing to various requirements of the factory Inspection Department having been lately enforced.

Plant and Machinery.—Cost more owing to a general rise in the prices of imported ones. In view of the general fall in the prices of machines through-

but the whole world, it is a puzzle to us as to why the prices of match machines, specially those made in Sweden, should rise enormously if not to make it impossible for Indian factories to be adequately equipped and to compete more advantageously with those established in India by the Swedish Trust.

(*Example.*—During the middle of April, 1926, the price quoted by a Swedish firm for an inner pasting machine was about Rs. 1,400, whereas to-day's quotation for the same machine is about Rs. 2,400. The German machine does not seem to be suitable for this country.)

66. *Vide* our answer to question 62.

67 to 74. Ours is a private concern as has been already mentioned.

75. *Vide* Appendix.

76 and 78. No.

79 to 80. Ours is a new concern and so we cannot say anything.

81. Rs. 25,000.

82. We are often required to borrow at a high rate of interest, exceeding in some cases, 24 per cent. The industry looks to Government for help in this matter through Co-operative Societies.

83. *Vide* answer to the above.

84. About Rs. 75,000.

85. About Rs. 20,000 at present. About 90 days.

86. Regarding coal—No. Regarding raw materials—about Rs. 35,000.

87. Yes, under direct employment of the proprietors.

88. (i) About Rs. 1,200.

89.

90. About 2 pies.

91. As ours is a private concern we cannot say anything at present.

92 and 93. No.

Claims to Protection.

94. (A), (B) and (C). Yes, we have already explained them in the written statement, already submitted.

95. (A) and (B) Yes.

96. We cannot say.

97. (a) Re. 1-8 per gross on finished matches and Re. 0-4-6 on one lb. of splints and 6 annas on one lb. of veneers for boxes.

(b) We do not know but we think that they are very small items.

98. The retention of the existing duty on imported matches, splints and veneers. The above duty should be transferred to the Protective head from that of Revenue. For reason *vide* our written statement already submitted as also the views expressed by the Indian Match Manufacturers' Association in their Secretary's letter No. 527, dated the 16th October 1926, to the Department of Commerce, Government of India.

99. (a) An excise at the rate of at least 8 annas per gross on the products of factories in India financed by foreign capital.

(b) The existing freight especially on the carriage of matches, chemicals and wood causes great hardship and the Railway and Steamship Companies be directed to grant facilities in the matter.

(c) Everything should be done to prevent anything of the nature of monopoly or cornering the market in wood.

APPENDIX.

Form II.—Statement showing works cost per gross of matches.

Last five months of 1925-26.

	A. P.	
1.	6 0	}
2.	2 0	
3.	4 0	
4.	3 0	
5.	4 0	
6.	1 0	
7.	1 0	
8.	3 0	
9.	0 6	
	Rs. 1-8-6	including cases, zinc sheets, nails, etc.

The Prasanna Match Factory, Dacca, Bengal.

Letter, dated the 19th April 1927.

We beg to enclose herewith the 6 copies of the answers as asked for in your No. 209 of the 7th March 1927 for favour of your kind consideration and necessary action.

We are the pioneer of the match manufacturer of the Eastern Bengal even our existence will not remain longer by the Calcutta Swedish factory if proper protection be not given to this poor cottage industry at an early date by imposing taxes on those foreign factories established in India.

INTRODUCTORY.

1. (a) The firm which we represent is called the Prasanna Match Factory which is established in December 1921.

(b) It is a private unregistered firm.

2. (a) It is an Indian Factory, and the Capital invested in this factory by the sole proprietor Babu R. K. Mojumder is about Rs. 5,000.

(b) No Director.

(c) No Europeans.

3. Our Factory undertakes the whole process of manufacture, i.e., Veneers, Splints, Matches, Match Boxes, but we use to purchase foreign splints for our full size matches.

4. In December, 1921.

5. The machines can produce 100 gross complete veneers and splints of match boxes, but owing to the scarcity of wood the machines cannot work more than 3 days in each week, and the factory can produce 20—30 gross matches, but as the factory depends wholly to the labourers, owing to their constant irregularity the outturn differ.

6. We manufacture medium and full size matches, the medium boxes contain 70—80 matches and full size contains 90—105.

7.

	Gross.
1921	98
1922	2,520
1923	3,960
1924	4,320
1925	5,400
1926	7,920

8. The Factory is situated at 30 Becharam Dewry, Dacca.

(a) and (b) The site we have selected is most unsuitable for our Factory partly because it is far off from the forest which supplies us with wood, and partly it is far off from Calcutta from where we purchase other raw materials.

(c) Yes, from here we can transport to the important market of the Eastern Bengal at a cheap rate.

(d) Here labourers can be had at a cheap rate up to last Janmastamy festival, but after Hindu-Moslem riots that advantage is gone. In selecting the site, its proximity to forest supplying suitable wood at a cheap price with convenient means of communication and transport is considered as the most important factor.

9. Yes, mainly in respect of splints and to some extent box veneers made of native wood, regarding chemicals we have made considerable improvements.

(b) Yes. There are strong prejudices in favour of white splints against the dark ones.

(c) People will pay 1½ pice for a box of imported matches (with white splints) but not more than 9 pice per dozen for the native article.

RAW MATERIALS.

Wood.

10. If we can be supplied with an abundant quantity of native wood suitable for the industry, we may dispense with the necessity of using foreign timber for articles mentioned under sub-heading (a), (b) and (c).

11. We generally use Gnwa (bot. name) wood for all purposes but sometimes we purchase white foreign splints from Calcutta, and purchase foreign packing cases from the local market.

12. No. In respect of strength and colour and wastage of Gnwa wood is larger, but we have used a piece of native wood which in respect of quality, colour and strength are not inferior to foreign wood, they can be had at Shillong; but it is very costly to get unless Government help.

13. (a) and (b) Average 180 tons Gnwa wood required annually.

14. 50 cubic feet of Gnwa or 30 cubic feet of foreign wood (Aspen) on an average.

15. The measurement of packing case for full sized matches which contains 50 gross is 24" height, 26" breadth and 40" length. We use packing case for full sized 50 gross and 57 gross medium size.

16. Our factory draws its supply of wood from Khepupara in Sunderban where Government Forest Office is situated, it is about 400 miles off from Dacca.

17 and 18. The Gnwa wood are cut by the local forestmen, from forest the wood is carried by local boat up to Jhalakati (an important bazar of Bakhergunge district) and from where by large boats they are transported to Dacca. It is for these loading and unloading at different places, the cost of wood goes higher and higher. We applied the Rivers Steam Navigation and India General Navigation Company, Limited, for carrying these woods from the neighbouring Sunderban forest, but the charge is so exorbitant, that it is impossible to carry any business with them. Above all they refuse to carry during

the rainy season, when they get more money in jute market so at that season we are absolutely helpless.

19. The machines are set up in 1926 and logs are purchased piece by piece, and we do not keep any account separately.

20. We do not get any concession at the time of purchasing, people from various parts of Eastern Bengal go to cut Gnwa wood for fuel, consequently the price is gradually increasing. The Forest Office has not laid down any law that nobody except match factories will be entitled to cut Gnwa wood. There is no reserve forest, so very soon it will be finished.

21. No. Match manufacturing requires green wood and the wood keeps green up to a month from the date of felling, with longer delay wood becomes dry and unsuitable owing to the difficulties of the waterways and dependence on wind and weather, the wood is apt to arrive too dry. Power-driven boats and regular dredging are absolutely needed.

22. No. Sometimes scarcity of wood is felt for days together.

(a) No.

(b) Partly true.

(c) No.

(d) Due to this wood being used largely for other purposes.

23. We do not know.

24. We believe that if the Gnwa wood is reserved exclusively for the manufacturer of matches, it may be assured of a sufficient supply for a reasonably long period.

Not to our knowledge. No.

25. (a) No.

(b) Yes, we consider the present freight charged by Railway Steamship Companies for the carrying of wood to be excessive. Had we been favoured with a special rate by the Rivers Steam Navigation and India General Navigation Company, Limited, for carrying wood from the forest to Dacca. We could have worked our machines throughout the whole year round.

OTHER RAW MATERIALS.

26. Raw materials, besides wood are (1) Chlorate of Potash, (2) Bichromate of Potash, (3) Ferric Oxide, (4) Manganese dioxide, (5) Sulphur, (6) Glass Powder, (7) Lamp Black, (8) Black Sulphide of Antimony, (9) Umber, (10) Red Phosphorus, (11) Oxide of Zinc, (12) Gum, Glue, Gelatine, (13) Paraffin, (14) Paper for wrapping, (15) Paper for packing.

27.

No. 1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 lb.
No. 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3 "
No. 3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2 "
No. 4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10 "
No. 5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4 "
No. 6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10 "
No. 7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 "
No. 8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3 "
No. 9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2 "
No. 10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3 "
No. 11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2 "
No. 12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4 "
No. 13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20 "
No. 14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5 "
No. 15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 "

of reels.
paper (dozen and gross)
for full sized matches.

28. We buy them from Calcutta market.

(b)

	Rs. A.
(1)	28 0 per cwt.
(2)	56 0 „
(3)	15 0 „
(4)	18 0 „
(5)	12 8 „
(6)	9 0 „
(7)	90 0 „
(8)	68 0 „
(9)	290 0 „
(10)	15 0 „
(11)	82 0 „
(12)	0 6 per lb.
(13)	0 4 „
(14)	0 6 „
(15)	0 8 „

(c) In addition to these we have to pay average Rs. 1-6-6 per maund as steamer freight from Calcutta to Dacca Ghat and 14 annas for each cart loaded goods from Dacca Steamer Ghat to our factory.

29. We cannot forecast this.

Labour.

30. In spite of all disadvantages, we started our factory at Dacca, considering labours were cheap here, but owing to the gradual increase of cost of living and specially after the Hindu-Moslem riots during last Puja festival the Moslem labourers who are the backbone of our factory not to work in our factory, most of the labourers have resumed to other lucrative works, for, we cannot increase the rate of wages of the labourers for foreign matches and Swedish matches manufactured in Calcutta have overflowed the local market at a cheaper rate, so we cannot but reduce our rate for matches but at the same time we are forced to increase the rate of labourers as asked and other raw materials—such difficulties we are facing.

31. We can hardly afford to pay for foreign labour, Indian labour if properly trained becomes efficient.

32. We do not import any labourer.

33. Nothing. As we do not import? We personally train the labourers and teach them again and again until they are skilled in various department.

34. About 25 in all, about $\frac{1}{4}$ children and $\frac{3}{4}$ men and women, children 4 annas to 6 annas, women 6 annas to 10 annas, man 1 rupee to Re. 1-4 per day.

35. All labourers are local.

36. We are too poor to pay for foreign labour, Indian labour if properly trained becomes efficient. We have no record.

37. This does not arise in our case, as all are local.

Power.

38. The power used in our factory derived from electricity.

39. The motor we use is $7\frac{1}{2}$ horse-power, and the electricity supplied by the Dacca Electric Company, Limited. Cost per unit 3 annas 3 pies. We have not made any comparative study.

40. No concern.

41. We have not been able to calculate this.

42. We have no record.

43. We have no idea.

Market.

44. We do not know.

45. We are unable to forecast this.

46. As our matches are not sold in the local market we are to send it to other markets, and they are far off from 20 to 150 miles.

47. Practically no.

48. (a) All our products are sold, but at prices out to a ruinous extent.

(b) There is a persistent rumour that matches are smuggled into ports belonging to Native States and brought into British India.

Competition.

49. Undoubtedly Sweden and Japan.

50. The serious competition is from Indian matches manufactured with imported wood.

51. (1) We have no information on this head.

(2) In—

	Rs. A.
1922	2 8
1923	2 6
1924	2 6
1925	2 0
1926	1 12
1927	1 8

(3) We cannot give you any idea.

52. Commercial Intelligence Department.

53. (a), (b) and (c) These seem to be a question about their trade secret.

54. (a) Yes.

(b) Yes.

(c) Our labour is dear estimated by its output.

(d) Yes. It has to be brought overseas and conveyed long distance by rail.

(e) Same disadvantage as machinery.

(f) Yes, freight is one of our main cause of grievance.

(g) Shortage of capital is commonly a difficulty in this respect.

(h) Yes.

(i) Our greatest difficulty.

55. (a) Temporary till we manufacture more in India.

(b) Temporary we have trained people.

(c) Temporary we have trained people.

55. (b) Temporary we have trained people.

(c) Temporary we have trained people.

(d) Temporary till Railways and Steamship Companies give concessions.

(e) Same as above.

(f) Same as above.

(g) If suitable measures are adopted to establish confidence in the future of the industry this will improve.

(h) This is a matter for Government.

(i) Shortage of Capital is commonly a difficulty in this respect. It may take a couple of decades to overcome this difficulties.

Equipment.

56. Ours is a cottage industry. A factory equipped with machinery and appliances sufficient to manufacture at least 500 gross a day can, in our opinion, be operated economically under present day condition.

57. Half of our invested capital.

58. (a) One peeling machine, one splint chopper, one veneer chopper, one polishing drum, one cleaning machine.

(b) We did not make any special arrangement.

59. (a) No, we cannot, if the present duty is not maintained and an excise at least at 8 annas per gross be not imposed on the products of factories in India financed by foreign capital.

(b) There are some machines used specially for drying, box filling, side painting, packetting, sawing, barking, outer and inner box pasting, etc., which owing to cost and difficulty of handling we have not been able to introduce in our factory and this prevents us from giving any estimate of the relative cost.

60. (a) At present financial difficulties is standing on our way.

(b) The same difficulty.

61. Peeling, splint chopper, veneer chopper, frame emptying machines are manufactured in India.

Capital Account.

62. (a), (b), (c), (d) and (e) We do not keep any record.

63. (a), (b), (c), (d) and (e) We do not keep any record.

64. (a), (b), (c), (d) and (e) We do not keep any record.

65. *Building*.—Cost more owing to various requirements of the factory paying heavy rent for our factory.

Plant and machinery.—Cost more owing to a general rise in the prices of imported ones. In view of the general fall in the prices of machines throughout the whole world, it is a puzzle to us as to why the prices of match machines, especially those manufactured in Sweden should rise enormously if not to make it impossible for the Indian factories to be equipped with up to date machinery so as to enable them to compete with matches manufactured in India by the Swedish Trust.

Example.—In the middle of May 1926 the price quoted by a Swedish firm for an inner pasting machine was about Rs. 1,400 whereas to-day's quotation for the same is about Rs. 2,400. The German machine is not so suitable for Indian condition.

66 to 74. Our is a private concern. We work with our own capital.

Work cost.

75. See Appendices A and B attached herewith.

76. The working cost is increased in the following ways:—

(a) Machines cannot work owing to the scarcity of wood hence they are lying idle.

77. No.

78. We are unable to answer this.

OVERHEAD CHARGES.*(i) Depreciation.*

79. We are unable to answer this.

80. We cannot say.

(ii) Working capital.

81. Our working capital is about Rs. 5,000.

(i) Our working capital is about Rs. 5,000.

(ii) About Rs. 10,000.

82 and 83. We are often required to borrow at a high rate of interest exceeding in some cases 24 per cent. The industry looks to the Government for help through Co-operative Society.

84. We cannot say.

85. The tendency of the market is to pay 3 to 4 months after delivery.

86. We hold large stock of raw materials, as we cannot buy them immediately from the local market when we want.

87 and 88. No.

89 to 93. Our factory is a private company.

Claim for protection.

94. A, B, C. Yes, we have explained them in the written statement already submitted.

95. (a) Yes.

(b) Yes.

96. In India we have more or less isolated district, difficult of access, where there is cheap labour and where suitable could easily be produced. The agriculturists not being occupied wholly of their time will work in an industry very cheaply such district ought to supply their own needs in the matter of matches. Besides the labour there are unemployed educated people in such districts who being to live cheaply are satisfied with small earning.

97. (a) Re. 1-8 per gross on finished matches and 4 annas 6 pies on one pound splints and 6 annas on one pound veneers for boxes.

(b) We do not know. But we think that they are a small item.

98. The retention of the existing duty on matches, splints and veneers. For reason *vide* our written statement already submitted as also the views expressed by the Indian Match Manufacturers' Association, in their letter No. 527, dated the 16th October 1926, to the Commercial Department, Government of India.

99. (i) An excise at the rate of at least 8 annas per gross on the products of factories in India financed by foreign capital.

(ii) The existing freight specially on the carriage of chemicals, matches and wood causes great hardship, and the Railway and Steamship Companies be moved to grant us facilities in this matter.

(iii) Everything should be done to prevent anything of the nature of monopoly or cornering the market in wood.

APPENDIX B. FORM II.

	PER GROSS FOR DACCA.								
	1922-23.		1923-24.		1924-25.		1925-26.		
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	
1	0	5	0	0	5	0	0	6	0
2	0	3	0	0	3	0	0	2	0
3	0	7	0	0	6	6	0	5	0
4	0	10	0	0	9	0	0	8	0
5-10	0	7	0	0	6	6	0	6	6
Total	2	0	0	1	14	0	1	11	6
							1	8	0

Calcutta Match Factory, Calcutta.

Letter, dated the 19th April 1927.

With reference to your letter No. 209, dated 7th March 1927, I beg to enclose herewith the answers to the questionnaire enclosed with your above letter.

Answers to questionnaire.

1. The factory was started in 1911 and it was closed down from 1914 to 1921 and began working since 1922. It is an unregistered firm and I am its sole proprietor. No European is engaged.

2. My own capital is invested in it and there are no Directors, I being its sole proprietor. No European is engaged.

3. My factory manufactures splints and veneers; match boxes and matches and whole process of manufacture is made in my place.

4. Since 1925.

5. 200 gross of finished matches per day.

6. Mine is a 3/4 size box of the size 52×37×17 mm. and used to hold 55 to 60 sticks, and now I am making thinner sticks 1.8 mm. and it now contains 80 to 85 sticks.

7. The output in 1925—5,000 gross, in 1926—4,000 gross.

8. The factory is situated at 38/1, Russa Road South, and it is advantageously situated in respect of (a), (b), (c) and (d). In my opinion a match factory ought to have two branches, one in the forest where good wood can be had and making splints and box veneers and send them down to a place near a big town with a Port like Calcutta, Madras, Bombay, Karachi.

9. (a) Matches manufactured in my factory are not inferior to any imported matches except Swedish and they are not liked because the sticks are not pure white.

(b) I think if white wood can be used in the manufacture of matches then there will be no prejudice against Indian made matches.

(c) It is very difficult for me to answer this question for I am myself a manufacturer of matches. There will be no prejudice against Indian matches if the sticks are white.

Raw material.

Wood.

10. I have never imported for (a), (b) and (c).

11. I have used the following Indian wood—

- (1) Genwa, *Excoecaria agallocha*,
- (2) Khanakpa, *Evodia fraxinifolia*,
- (3) Kapasi, *Acer Campbelli*,
- (4) Sisi, *Lindera pulcherrima*,
- (5) Kharani, *Symplocos* sp.,

for (a) and (b).

For (c) I purchase old packing cases from the market and do not make them.

12. Except (1) Genwa, which becomes decomposed if it is allowed to remain a long time after felling; others are as good as the imported ones.

13. (a) 3,200 c.ft.

(b) 37,000 c.ft.

14. 65 c.ft. for 100 gross.

15. The standard size (inside measurement) of the packing case is 33" x 23" x 24" and 1½ c.ft. of wood is required for one case. 50 gross of ¼th size boxes can be packed in one case.

16. From the Sunderbans which is about 100 miles from the factory and they are purchased locally from the Canal side.

17. The contractors hire boats and fell the trees in the forest and bring them by country boats to Belliaghata and Ultadingi and they are purchased by the shop-keepers or *Aratdars* and from them I purchase and bring them to the factory by bullock carts.

18. Cannot say.

19. Cannot say.

20. A copy of the lease which I got from the Government of Bengal and copies of the correspondence are enclosed. If the Government had made their forest policy a little progressive then Bengal would have been in a position to supply wood for manufacture of matches to whole India. After the lease I asked the Forest Department to mark the trees but it was found that the quantity is not sufficient for my purpose and I found that the royalty for the same wood has been charged more than they were sold to the local public. I pointed this out to the Secretary, Revenue Department, and he asked me to give up the lease and the Forest Department will mark out trees one year in advance in the forest and I will fell them by my agency. The royalty demanded is three times the royalty which is taken from the local contractors for the same timber and I was asked to sign an agreement, from which I found that I will be allowed only in the area which was leased out to me and from which it was found I could not get sufficient timber. I understood that I would be able to fell timber required by me from the whole forest which will be felled in the next year and which I ascertained it to be 150 acres or more in that division. There was another clause in the agreement that I will be criminally prosecuted if my agents or coolies fell any tree other than which has been marked for me. For the above reason I am purchasing local Genwa wood.

21. The quality of the local wood is not deteriorating.

22. Quantity is increasing daily and most probably the contractors are felling them at a greater distance.

(a), (b), (c) and (d).

There was no demand for Genwa wood 25 years ago and its price was Rs. 80 per 100 maunds, and now on account of the demand of the match factory and for making packing cases of all kinds its price has gone up to Rs. 125 per 100 maunds.

23. Cannot say.

24. There is no assurance of any kind about the supply of wood from anyone for any period. As far as I know no steps have been taken for planting sufficient suitable trees at a reasonable distance of my factory. This can be done by Government alone.

25. I received special concession from Railway Companies for bringing logs to my factory; probably it has lapsed by this time.

Other raw materials.

26. The following are the other raw materials required for my factory—
Papers, Chemicals.

Papers—

Packing paper for 15,000 gross—7 cwt. nearly.

Roll paper for 15,000 gross—14 cwt. nearly.

Chemicals for 15,000 gross—53 cwt. 2 qr. nearly.

27. Packing paper for 100 gross nearly 5 lbs. Roll paper for 100 gross 10½ lbs. Labels for 100 gross 150,000. Chemicals 40 lbs. nearly.

28. All of them are imported from Europe. Chemicals can be had at a cheaper price from Germany and papers from Sweden.

29. Cannot say.

Labour.

30. Cannot understand.

31. No skilled labour need be imported from abroad.

32. None.

33. Some of my labourers were trained by a German expert.

34. Total number is 22, of which boys 9, and no woman is employed.

35. From the vicinity of the factory.

36. There is no doubt of the Indian labourers improving with training. There are records in my factory.

37. All of them live in their own huts at a distance of 3 miles from the factory.

Power.

38. Electricity.

39. From the Calcutta Electric Supply Corporation at 2 annas per unit.

40. Does not arise. But I use coal for my boiler for heating purpose and it can be had in abundance.

41. Cannot definitely say.

42. The price of coal delivered to the factory is Rs. 12 per ton.

43. Does not arise.

Market.

44. Cannot say definitely.

45. Cannot say.

46. At a radius of 500 miles from Calcutta.

47. None.

48. (a) Cannot say.

(b) Cannot say.

49. Sweden and Japan.

50. Japanese matches are almost out of market. Small quantity of Swedish matches come to Calcutta. Cannot say the exact quantity.

51. (i) The price of imported matches in 1922, 1923, 1924, 1925 and 1926 cannot say.

(ii) In 1925, Re. 1-10-0 and in 1926 Re. 1-6-0.

(iii) Cannot say.

52. From importers.

53. I have no personal knowledge on this subject.

54. The foreign manufacturer has an advantage over the Indian manufacturer about (a), (b), (c), (d), (e), (f), (g) and (i).

55. Excepting (c) all the rest are permanent disadvantage. In 15 years this temporary disadvantage will disappear, when the labourer will be fully trained and will be able to turn out finished articles by working the machines.

56. No. The smallest quantity which can be turned out by a factory to make it pay is in my opinion 500 gross a day.

57. Nearly 40 per cent. on plant and machinery.

58. (a) It is difficult to answer this question briefly. I have got all up-to-date machinery purchased from Germany in different years and I humbly invite the members to visit my place and see them and form their own opinion.

(b) They have been purchased by paying cash and by no special arrangement.

59. (a) My machinery and equipment are up-to-date and efficient and I am able to compete successfully with the foreign manufacturer on the present condition but I want some sort of protection against those foreigners who have established their factories in and around Calcutta and have come here with the ostensible purpose of killing these local industries.

(b) I do all the processes by machinery except some portion of filling the boxes with sticks, putting labels on the boxes and packeting.

60. (b) As soon as the unhealthy competition in the market ceases I will bring some more frames and box pasting machine to increase the output of my factory to 500 gross a day.

61. None.

Capital Account.

62. The block value is nearly rupees two lakhs and they are as follows:—

	Rs.
(b) Lands	44,445
(c) Building	20,000
(d) Plant and Machineries	80,000
(e) Other miscellaneous assets	40,000

63. Actual cost and no depreciation has been calculated and written off.

64. Cannot say.

65. Cannot say.

66.

6th February 1924	£15 at 1s. 4 $\frac{2}{3}$ d.
4th September 1925	£75 at 1s. 5 $\frac{2}{3}$ d.
1st May 1925	£185 at 1s. 5 $\frac{1}{4}$ d.
16th July 1925	£2-17-9 at 1s. 5 $\frac{1}{20}$ d.
7th November 1926	£21-4-6 at 1s. 5 $\frac{1}{2}$ d.

67. In my case it does not arise.

68. In my case it does not arise.

69. In my case it does not arise.

70. In my case it does not arise.

71. In my case it does not arise.

72. In my case it does not arise.

73. In my case it does not arise.

74. A lakh of rupees will be necessary for the extension of the plant.

Works cost.

75. The two forms have been filled and enclosed and they can be published.

76. Factory did not work in its full capacity.

77. Cannot supply any cost sheet as none has been preserved.

78. No.

Overhead charges.

79 to 93. No reply.

Claim for protection.

94. As regards claim for protection, I have stated my views fully in reply to the Press Communiqué, dated 29th November 1926, and I have submitted my views to the Secretary, Tariff Board, on 31st October 1926.

A. Industry possesses abundant supply of raw materials in the shape of wood, cheap power and a sufficient supply of labour and a large home market. The chemicals and papers will be manufactured in the country, if there is a regular demand for the same in the country.

B. It is known to everyone how many factories have been started in the country with Indian capital after this duty has been levied and if this protection continues for another 10 years then all these factories will be developed rapidly in the interest of the country.

C. I am morally sure that the industry will be in a position to hold its own against the world competition and will be in a position to export the excess matches abroad. I have stated my reasons fully in my statement submitted on 31st December 1926.

95. (a) I have shown in _____ that increase in production will cause economy in production.

(b) It can be easily seen how many gross of matches are being turned out locally and in no distant future India will not import any of this article from abroad.

96. The principal raw material (wood) is available in this country.

97. (a) Re. 1-8-0 per gross.

(b) Cannot say.

98. The same as it is at present, *viz.*, Re. 1-8 per gross. The present selling price of Indian made matches is below Re. 1-8 per gross, and if the duty remains at Re. 1-8 then the foreign matches cannot be imported in the country.

99. The Swedish factory with American capital is out here to kill this industry of the country and then to sell their goods and derive enormous profit at the expense of consumer. The Japanese have started one or two factories with Japanese capital and they are selling at a credit in the market so not a gross can be sold in cash and no business with a limited capital like the Indians can flourish side by side amidst this unhealthy competition; so I request that a further duty of 8 to 12 annas per gross be levied on all the factories who are dependent on foreign capital and who have got some connection in one shape or other with the foreigners. I enclose herewith the cuttings from the "Times of India."

Form I.—Statement showing total expenditure on the production of matches during the last four years.

	1925.		1926.	
	Rs.	A. P.	Rs.	A. P.
1. Cost of wood for splints and veneers	1,971	6 0	667	14 0
2. Cost of paper	334	0 11	219	9 0
3. Cost of chemicals	739	11 9	592	3 0
4. Cost of other raw materials	482	8 0	300	9 9
5. Factory labour	3,793	14 9	4,105	3 0
6. Power and fuel	1,476	14 9	863	6 3
7. Ordinary current repairs and maintenance of buildings, plant and machinery.	...		...
8. General services, supervision and local office charges.	500	0 0	500	0 0
9. Miscellaneous, <i>e.g.</i> , rent, municipal taxes, insurance, etc.	178	12 0	178	12 0
10. Cost of packing cases . . . . .	...		216	4 0
Total production of matches	5,000 gross		4,000 gross	

Form II.—Statement showing works cost per gross of matches.

	Cost per gross calculated from a production of 1,000 gross in one month.		
	Rs.	A.	P.
1. Cost of wood for splints and veneers	0	2	4
2. Cost of paper	0	0	9
3. Cost of chemicals	0	1	6
4. Cost of other raw materials	0	1	0
5. Factory labour	0	6	3
6. Power and fuel	0	2	3
7. Ordinary current repairs and maintenance of buildings, plant and machinery.	...		
8. General services, supervision and local office charges . . . . .	...	
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc. . . . .	...	
10. Cost of packing cases	0	1	0

“TIMES OF INDIA.”

Dated 13th March 1925.

When the grant for the Industries Department came up for discussion in the Bombay Legislative Council, the Minister-in-charge, Mr. B. V. Jadav, came in for severe criticism. Members, one after the other, accused the Minister of want of any knowledge in matters industrial, and a motion was brought forward for reducing the grant by a thousand rupees. Mr. Hoossanbhai A. Lalji, who is an enterprising businessman, emphatically declared that the Minister did not know anything about the match or any other industry. He revealed a very serious state of things for the match industry in India. There were, he said, four match factories in the Bombay Presidency, one of which at Ahmedabad was struggling for existence for the last twenty years. They were importing into Bombay the logs of wood required from Siberia, as it was found the steamer freight from Siberia to Bombay cost less than the railway freight on wood from Northern India to Bombay. This was not all. An American Syndicate with a capital of about two crores sterling had started a big factory at Ambarnath, near Bombay, and were going to build factories at Karachi, Calcutta and Rangoon, not with a view, he declared, to supply India's needs but for the purpose of killing the existing factories in India. This Syndicate, he said, had already taken in hand the match industries of Sweden, Czechoslovakia and China, though they failed to secure a footing in Japan owing to the Japanese Government's resistance. This American Match Trust, he added, had cornered a chemical most essential for match manufacture, which could not be bought except through this Syndicate. They were also offering higher wages to experienced Indian workmen from the existing match factories. He urged for intervention by the Government of India.

Enclosure No. 1.

Agreement, dated 10th March 1925.

AN AGREEMENT, dated the Tenth day of March One thousand nine hundred and twenty-five made BETWEEN THE SECRETARY OF STATE FOR INDIA IN COUNCIL (hereinafter called "the Secretary of State") of the one part and SAILENDRA NATH MITRA carrying on business as Managing Proprietor of the Tollygunge Match Factory in the city of Calcutta residing at No. 94, Bakulbagan Road, Calcutta (hereinafter called the "Firm" which expression where the context so admits or implies shall include his executors administrators and assigns) of the other part.

1. The Secretary of State with the object of providing for the manufacture in India of matches hereby grants to the Firm liberty to enter upon that portion of reserved forest situated in the Darjeeling District and known as Block II of Senchal Range of the Darjeeling Forest Division and shown in the plan hereto attached and to cut and remove therefrom all trees in the manner and upon the conditions hereinafter prescribed.

2. The Firm shall each year clear fell the annual coupe of the said Block which shall be laid out in advance by the Divisional Forest Officer, Darjeeling, in accordance with the prescriptions of the working plan at that time in force and shall work in a regular and systematic manner to the satisfaction of the Divisional Forest Officer, Darjeeling. In the event of a shortage of matchwood occurring in the coupe of the current year the Firm may with the permission of the Divisional Forest Officer, Darjeeling, in writing fell and remove such trees as may be marked for that purpose by the Divisional Forest Officer, Darjeeling, in the coupe of the subsequent year.

3. The Firm shall have the option of purchasing any timber and firewood marked in any "clear felling or selection felling or improvement felling or thinning" specified by the Divisional Forest Officer, Darjeeling, within the area of this concession but without the current annual coupe due notice of which requirement shall be given to the Firm in writing provided that if the Firm fail to inform the Divisional Forest Officer, Darjeeling, within three months of service of such notice of its willingness to purchase and further to remove such timber and firewood within twelve months the Divisional Forest Officer, Darjeeling, may dispose of such timber and firewood as he may think fit without further reference to the Firm.

4. The Firm shall fell all trees and cut all brushwood in the coupe or coupes from time to time specified by the Divisional Forest Officer, Darjeeling, as provided in clauses 2 and 3 work in which shall be undertaken by the Firm and shall fell everything as *close to the ground* as is practicable in the opinion of the Divisional Forest Officer, Darjeeling. The Firm may utilize all such timber matchwood and firewood as it thinks fit subject to the conditions of clause 5.

5. The Firm shall remove the timber obtained from all trees felled under this Agreement to a depôt or depôts the sites of such depôts to be determined by mutual agreement between the Conservator of Forests, Bengal, and the Firm. The Firm shall not remove the timber from such depôts or firewood from the coupe until it has been measured and passed by an Officer of the Forest Department who shall do so with all reasonable despatch and until royalty thereon has been paid by the Firm subject to the provisions of clause 10 hereafter. Except with the previous written permission of the Divisional Forest Officer, Darjeeling Division, no timber may be split squared or converted until it has been measured and passed for royalty. Matchwood will be measured on the cart as soon as extracted.

6. The Firm shall commence work within three months from the date of this Agreement and complete its Factory and have it in running order within two years from the date of this agreement failing which this agreement shall be null and void under the provisions of clause 16 hereafter. Provided that if in the interests of the Firm a factory should not be necessary in Senchal II it shall then lodge with the Divisional Forest Officer, Darjeeling, a security deposit of the value of Rupees five thousand in lieu thereof.

7. The Firm shall pay to the Divisional Forest Officer, Darjeeling, for the construction of a cart-road within the Reserved Forest in continuation of the Simkuna Rangbi road on an alignment to be determined by mutual agreement between the Divisional Forest Officer, Darjeeling, and the Firm from Rangbi to Sonada or Tung railway station a sum not exceeding Rupees One thousand five hundred each year until the road is completed. The Divisional Forest Officer, Darjeeling, shall be at liberty to prohibit the passage of carts of the Firm over the whole or part of any road or roads within Reserved Forests at any time if for any reason he deem it necessary. Provided that all means of exit for carts from the area to the Railway is not closed for a period exceeding two weeks in every three months excepting during the months of July, August and September when the road will be closed to all cart traffic.

8. The Firm shall be entitled to such building stone road metal timber or other forest produce from reserved forest as it may require for the purpose of erecting buildings or aerial ropeways or constructing and maintaining roads necessary for its work royalty free. All forest produce required by the Firm shall be first selected and marked by a Forest Officer and the Firm shall not fell or remove any such produce which is not so selected and marked.

9. The Firm shall be allowed the free use of water from any stream within the reserved forest with the previous consent of the Divisional Forest Officer, Darjeeling, in writing provided that the use thereof is in no way prejudicial to any pre-established rights of any tea estate village or of any other persons and provided that the water habitually used by such persons be not polluted and that due precautions be taken by the Firm to prevent any water in any way polluted by its machinery or otherwise by its act from polluting any regular water-supply of any person and provided that the Firm undertake to make all dams tanks water channels and the like which may be necessary for the carrying out of its work in a secure and proper manner so as to minimize the risk of their causing landslips flood or soil erosion and that if in the opinion of the Divisional Forest Officer, Darjeeling, all proper precautions are not at any time being taken to effect any or all of the said purposes the Divisional Forest Officer, Darjeeling, may from time to time prohibit the use of such water by the Firm until such precautions shall have been taken and the Firm shall be bound by such prohibition.

* Provided that nothing contained in this clause shall permit the Firm to do any act specified in sub-section (b) of section 76 of the Bengal Embankment Act, 1882 (Bengal Act II of 1882) without the previous permission of the Deputy Commissioner.

10. The Firm shall not erect any building nor clear sites for buildings or other purposes inside reserved forest without the previous consent of the Divisional Forest Officer, Darjeeling, in writing. For all such ground as is made available for such purposes as aforesaid ground rent at the rate of five rupees per acre per year shall be paid in advance by the Firm to the Secretary of State.

11. All wood extracted under this Agreement shall be classified as "timber" "matchwood" and "firewood" by an officer of the Forest Department.

For the purposes of this clause "timber" shall mean pieces of wood suitable for use otherwise than as fuel trees of girth exceeding 3' at 4' from the ground or logs exceeding 3' in girth at 3' from the thick end and "matchwood" shall mean pieces of wood which are *bona fide* intended for manufacture into match splints or match boxes and mentioned hereafter. "Firewood" shall mean pieces of wood not included in the description "timber" or "matchwood." The Firm shall pay royalty on all timber matchwood and firewood so classified at the following rates:—

Timber.

(a) Trees (girth exceeding 3 feet at 4 feet from the ground) or logs (girth exceeding 3 feet at 3 feet from the thick end). Rates vary according to localities and according to special and these are arranged as follows:—

Localities.

I. Singalila Range, except locality II,

II. The areas of Little Rangit and Tonglu closed to grazing.

III. Sambong, Pashok, Mangwa, Sim and Sureil.

IV. Mim 3, 4 and 5, Nagri 1, 4 and 5, Tasiding 3 and 4, Takdah, Takdah Cantonment Forests, Senchal 2, Bara Senchal, Chatakpur and Senchal 1 (c) (coupes 7 to 10).

V. Senchal 1 (b), Senchal 4 above old Military Road, Senchal 3 (South of Kalikhola), Posambing 1 to 4, Mim 1 and 2, Nagri 2 and 3, Tasiding 2, Jor-pokri, Dungdungia, Riang and Badamtam.

VI. Soom, Patlaybas, Senchal 1 (a), Senchal 1 (c) (coupes 1 to 6), Senchal 3 (North of Kalikhola), Senchal 4 below old Military Road, Senchal 5, Senchal Pasture, Tasiding 1 and 5 and Posambing 5.

Species.

A. Safed Champ, Onlia Champ, Pipli, Toon (*Cedrela microcarpa*), Haluri Toon (*Cedrela toona*), Walnut and Malagiri.

B. Buk, Phalat, Sungre Katus, Katus, Sampati, Dudley Sampati (*Artocarpus chaplasha*) and Angare.

C. Paieli, Onlia Sali, Kawla, Sepcha Kawla, Dar, Maya, Kimbu, Arupate, Kainjal, Kala Siris, Gambari, Panisaj and Chickrassi.

D. Phusre Champ, Tite Champ, Ghoghay Champ (*Cryptomeria*), Gobre, Dabdabe, Sisi, Chilauni Ulis, Chinde, Bhadrashi, Simul, Kadam, Sauer, Malatta Kappasi, Gokuldhup, Mowa, Maina Kat, Madani, Lapshi, Lisse, Pakasaj and all other oaks and chestnuts, except those mentioned under "B".

E. All other species.

Minimum rates per cubic foot of timber in the logs.

Locality.	SPECIES.					REMARKS.
	A.	B.	C.	D.	E.	
	A. P.	A. P.	A. P.	A. P.	A. P.	
I	3 0	2 0	1 6	0 6	0 3	Simul from Pashok and Mangwa, annas 3 per cubic foot.
II	5 0	3 0	2 0	1 6	0 6	
III	7 0	4 0	3 0	2 0	1 0	
IV	8 0	6 0	4 0	2 6	1 6	
V	9 0	7 0	5 0	3 0	2 0	Sampati and Dughay Sampati from Biang and Badamtam, annas 5 per cubic foot.
VI	10 0	8 0	6 0	3 6	2 6	

Sal timber in Tista and Ranjit Valleys.

	Rs. A.
Badamtam and Riang	1 0
Sambong, Mangwa and Pashok	0 14
	} per cubic foot.

NOTE.—(a) A reduction of annas 4 per c.ft. may be made for sal trees 4' 6" and under in girth at the discretion of the Divisional Forest Officer.

(b) Trees (girth not exceeding 3 feet at 4 feet from the ground) or poles (girth not exceeding 3 feet at 3 feet from the thick end).

Minimum rates per pole.

Locality.	GIRTH MEASUREMENTS.			Species.
	Up to 12'.	Over 12' to 24'.	Over 24' to 36'.	
Rangit and Tista Valleys	Rs. A. P. 0 4 0	Rs. A. P. 1 0 0	Rs. A. P. 2 0 0	Sal.
	0 1 0	0 3 0	0 6 0	Other species.
Other forests	0 2 0	0 6 0	0 12 0	All species.

NOTE.—Special rates to graziers under rule 7 of the Darjeeling Division Grazing Rules, annas 4 per tree of less valuable kinds and under 18" in girth for construction and repairs of bathoms (dry fallen wood free).

Firewood.

Minimum rates per 100 c.ft. stacked.

Locality.	Oaks.	Mixed.	Soft woods.
	Rs. A.	Rs. A.	Rs. A.
Singalila Range except the areas of Tonglu and Little Rangit closed to grazing.	1 8	1 0	0 8
The areas of Tonglu and Rangit closed to grazing.	3 0	1 8	1 0
Senchal 2, Bara Senchal, Chatakpur, Takdah 3 and 4, and Takdah Cantonment Forest.	4 0	3 0	2 0
Senchal 3 (South of Kalikhola), Mim 3 to 5 and Nagri 1, 4 and 5.	4 8	3 8	2 8
Tasiding 3 and 4, Jorpokri, Takdah 5, Nagri 2 and 3 and Mim 1 and 2.	5 0	4 0	3 0
Senchal Pasture, Senchal 1 (below cart road), Senchal 4, Posambling 1 to 4, Dungdungia and Tasiding 2.	5 8	4 8	3 8
Soom, Patlaybas, Senchal 1 (above cart road), Senchal 5, Senchal 3 (North of Kalikhola), Tasiding 1 and 5 and Posambling 5.	6 0	5 8	5 0

Locality.	Sal.	Mixed.	Soft woods.
	Rs. A.	Rs. A.	Rs. A.
Rangit and Tista Valleys Sim	2 0	1 8	1 0
Geille Coppice and Badamtam	2 8	2 0	1 8
Riang, Mangwa, Fashok and Sambong	2 0	1 4	0 8

Sungre Katus (an oak) will be charged as oak charcoal burning and as soft wood for split firewood billets.

"Mixed" firewood may not consist of more than one half oak or sal. Firewood to be used for a making charcoal is assessed on stacked measure in the kiln before burning.

Dry sticks including dry fallen wood and the branch wood of felled trees unsuitable for use as poles, of 3 inches in diameter or less, to be collected without the use of any cutting implement, are sold on the following terms:—

Locality.	Per Cooly load.	Monthly permit for one cooly load daily.	Toa Garden Coolies.
	As.	Rs. A.	
Senchal 1 and 3 (above cart Road), Senchal 5, Senchal Pasture, Tas'ding 1 and 5 Posambing, Soom and Patlaybas.	2	3 0	} Annas 4 per acre under ten.
The rest of Senchal, Tasiding, Mim Nagri and Takdah.	2	2 0	
Rangit, Tista Valley and Singalila	1	1 0	

General Note.—The above prices for timber and firewood are fixed on the assumption that purchasers will bear the cost of cutting, collection and removal. When trees are felled at the cost of the Forest Department, the following additional charges may be levied:—

For each tree, of which the whole or part is sold for timber Annas 6 to Rupee 1.
For each 100 cubic feet of stacked firewood . . . Rupees 2.

Bamboos.

Locality (range).	Choya Bans.	Mal.	Bans.	Small kinds.	
	Per 100.	Per 100.	Small lots.	Per 100.	Small lots.
	Rs. A.	Rs.		As.	
Soom and Patlaybas	12 8	...	...	8	1 anna per ten.
Singalila . . . . .	...	...	..	4	
Tista Valley	2 0	3	6 pies each	6	1 pie each.
Others . . . . .	...	..	...	8	1 anna per ten.

Bamboo off-shoots at Re. 1 per 100 in Senchal and Ghoompahar Ranges. Special permits for making mats, baskets, ghooms, etc., in the forests may be granted at the following rates:—

I. For the Little Rangit, Tonglu, Rilling and south Rimbeck Blocks of the Singalila Forest at Re. 1-3 per man per month.

II. For the other blocks in the Singalila Forest at Re. 1 per man per month.

NOTES.—Under rule 7 of the Darjeeling Division Grazing Rules, graziers are allowed bamboos and canes free of charge (on permit from Range Officer) for construction and repairs of bathoms.

Provided that the Firm shall not be required to pay royalty for a period of five years from the date of this Agreement on matchwood of the following species:—

Acer Campbelli	Kapasi.
Acer sikkimense	Labara Kapasi.
Alnus nepaleusis	Utis.
Caseari glomerata	Barkholi.
Echinocarpus Dasycarpus	Gobre.
Elaeocarpus lanceaclolius	Bhadraasi.
Engelhardtia spicata	Mohua.
Eciobotrya petioalta	Maya.
Evodia fraxiufolia	Kanakpa.
Lindera pulcherrina	Sisi.
Lindera assamica	} Paielli.
Litsoea elongata	
Macaranga spp.	Mallata.
Macropanax undulatum	Chinde.
Michelia Campbelli	Ghogay champ.
Eriothyna indica	Phalida.
Ostodes paniculata	Bepari.
Symplocos spp.	} Kholme.
Leucosceptuum canum	Gurupis.
Eurya spp.	Jhingui.

And provided that the Firm will be allowed a royalty free allowance of firewood of 50 c.ft. per person per mensem for a staff of fifteen persons only. At the expiration of the first five years of the said term the rates shall be fixed by the Government of Bengal from time to time. Such rates shall not exceed the Schedule rates fixed for residents of the Darjeeling district at the time on timber and firewood of species of similar classes and in the same localities.

12. The Firm shall provide every person employed by it in the cutting and collection of timber and firewood with a suitable badge for the purpose of identification.

13. The Firm shall abide by and observe the Forest rules in force for the time being in the locality and should there be any neglect of the said rules by the Firm or by any of its employees the Divisional Forest Officer, Darjeeling, shall have power at once to suspend for such time as he shall think fit the work of the Firm or its employees in any such locality. The Firm shall not employ any person in any of the areas allotted under this Agreement who in the opinion of the Divisional Forest Officer, Darjeeling, is not a fit and proper person to be so employed.

14. Officers of the Forest Department in the discharge of their duties shall have at all times free access to the premises, factories, depôts and godowns erected and maintained in pursuance of this Agreement.

15. This Agreement shall subject as in clause 16 mentioned remain in force for a period of thirty years from the date hereof, *i.e.*, up to the Ninth day of March one thousand nine hundred and fifty-five.

16. The Firm may before the expiration of the said period terminate this Agreement on the thirty-first day of March in any year by giving notice to that effect in writing to the Conservator of Forests, Bengal, on or before the first day of April of the year previous to that in which they desire to so terminate this Agreement.

17. In the event of the Firm failing to comply with any of the terms of this Agreement or in the event of the Firm not at any time carrying on the business of manufacturing matches or in the event of the Firm becoming insolvent or in the event of this Agreement being assigned to a Company and such Company going into liquidation it shall be lawful for the Secretary of State by notice in writing to the Firm under the hand of Secretary of the Government of Bengal in the Revenue Department to terminate this Agree-

ment at any time without prejudice to any other right or remedy of the Secretary of State hereunder.

18. In the event of this Agreement being terminated under clause 16 or on the expiration of this Agreement on the ninth day of March one thousand nine hundred and fifty-five the Firm shall be entitled to remove within six months all machinery and other stores, tools and plant, buildings and timber, matchwood and firewood on which royalty has been paid in full. It shall also be entitled to remove within six months such timber and other forest produce with the exception of road metal obtained under clauses 7 and 8 of this Agreement on payment of the full Schedule rates thereof. On the expiry of the said period of six months it shall be lawful for the Secretary of State to appropriate such machinery, stores, tools and plant, buildings, timber, matchwood and firewood as may remain in the said area or depôts or godowns without payment of any compensation to the Firm and such machinery and other property moveable and immovable, shall become the property of the Secretary of State.

19. In the event of this Agreement being terminated under clause 17 it shall be lawful for the Secretary of State to appropriate such machinery, stores, tools and plant, buildings, timber, matchwood and firewood as may in his opinion be necessary to cover loss and damage incurred by him and for which the Firm shall be liable and to dispose of the same as his own property.

20. On the expiry of the period specified in clause 15 above the Firm shall have the option of a renewal of this concession upon such similar terms as may then be agreed upon and for a further period of thirty years.

21. The rights of the Firm under this Agreement shall not be assigned transferred or disposed of to any other party without the previous sanction in writing of the Secretary of State under the hand of the Secretary to the Government of Bengal in the Revenue Department. If the Firm becomes Limited Liability Company sanction will not be withheld.

22. In the event of any dispute arising with regard to the terms of these presents or the construction of meaning thereof or of any part thereof or as to the performance of any act thereby required to be done or as to any other matter or thing in connection therewith the decision of the Governor of Bengal in Council upon the matter of such dispute shall be final and binding upon the parties hereto.

IN WITNESS whereof the Secretary to the Government of Bengal in the Revenue Department for and on behalf of His Excellency the Governor of Bengal in Council acting in the premises for and on behalf of the Secretary of State for India in Council has hereunto set his hand and seal and the said Sailendra Nath Mitra has hereunto set his hand and seal the day and year first above written.

Signed sealed and delivered by the Secretary to the Government of Bengal in the Revenue Department for and on behalf of His Excellency the Governor of Bengal in Council acting in the premises for and on behalf of the Secretary of State for India in Council in the presence of } (Sd). W. S. HOPKYNs.

Witness:

S. S. LATIF,

Asst. Secy., Revenue Dept.

Signed sealed and delivered by the } (Sd.) SAILENDRA NATH
abovenamed Sailendra Nath Mitra in the } MITRA.
presence of

(Sd.) SUDHINDRA NATH MUKERJEE,

Pleader, Judge's Court, Alipore,

24, Pudda Puker Road,

Bhowanipore, Calcutta.

Enclosure No. 2.

Agreement, dated 22nd December 1926.

AGREEMENT made this 22nd day of December one thousand nine hundred and twenty-six between the Divisional Forest Officer, Darjeeling Division (hereinafter called the Forest Officer) and Mr. Sailendra Nath Mitra of 94, Bokul Bagan Road, Calcutta (hereinafter called THE CONTRACTOR) to work in the coupe of 1928-29 of Senchal 2 of the Darjeeling Division for matchwood.

WHEREAS the Forest Officer undertakes :—

- (i) to lay out the Annual Coupe of 1928-29,
- (ii) to mark the trees therein with the Forest Department marking hammer,
- (iii) to sell the trees of the following species available therein to the contractor at 1 anna per c.ft.
 - 1. Sisi.
 - 2. Kharani.
 - 3. Kapasi.
 - 4. Khanakpa.
 - 5. Chinde.
 - 6. Ghogay Champ.
- (iv) to supply to the contractor the impression of the marking hammer and the list of trees mentioned in (iii) above before the 28th of February 1927,
- (v) to allow them to be felled, converted and extracted by the contractor before the 31st day of December 1927,
- (vi) to sale mark the trees after the royalty is paid.

The said contractor hereby agrees so to supervise and direct the work of all coolies, workmen and servants employed by or under him that no unnecessary damage shall be done in the said Government Reserved Forests and in particular the said contractor undertakes to see that no unmarked tree and no portion thereof, and no marked tree and no portion thereof other than the marked trees above specified in clause (iii) above as allotted to him and made over to the contractor shall be felled, cut, converted, or removed.

2. The contractor further undertakes that no portion of sawn timber shall be removed from the site of sawing until it shall have been marked with the Government sale mark.

3. The contractor specifically undertakes that no part of the outturn of the trees specified in the schedule shall be disposed of in any other manner than for the sole use of manufacturing match sticks or boxes for which only the said trees have been supplied at this rate.

4. If as a consequence of any neglect on his part to control and direct the work of all the coolies, workmen and servants employed by or under him any unmarked tree or any marked tree not specified in the schedule hereto as shown and made over to the said contractor be felled, cut, converted or removed by any of the said coolies, workmen and servants he the said contractor shall be liable to prosecution together with any or all of the said coolies, workmen or servants who may actually have felled, cut, converted or removed in contravention of section 25 of the Indian Forest Act, VII of 1878, any such unmarked tree or such marked tree as shall not have been allotted to him or any portion thereof respectively.

5. The contractor has deposited a sum of Rs. 250 (two hundred and fifty) as security for due observance and fulfilment of all the conditions of this agreement which sum or any part thereof shall be liable to forfeiture if any breach of these conditions is committed which forfeiture shall not debar the Divisional Forest Officer from taking criminal proceedings also as he may deem fit.

6. The cost of the stamp, if any, on this agreement shall be borne by Government.

IN WITNESS WHEREOF the parties aforesaid have hereunto set their hand and seal.

Enclosure No. 3.

26th November 1925.

To
The Revenue Secretary,
Government of Bengal.

SIR,

With reference to the Agreement, dated the 10th March 1925, regarding Senchal II Forest having an area of nearly 1,200 acres of which 40 acres nearly to be felled every year, I have the honour to make the following representations as a result of my recent visit to the place.

It has been agreed that I should pay a sum of Rs. 1,500 a year in lieu of royalty for the extraction of matchwood from an area of about 40 acres every year. It has been found from the valuation of 3 lots with a total measurement of 16 acres made by the Local Ranger that only 4,631 c.ft. of matchwood would be available for extraction. At this rate, 40 acres would yield 11,577 c.ft. which at the rate which they are sold to the public, viz., at Rs. 2 per 100 c.ft. works out at Rs. 231 against which I would have to pay Rs. 1,500 yearly thereby causing a loss to me of Rs. 1,269 every year.

On the above basis, I have been asked to deposit with the Conservator of Forests a sum of Rs. 5,000 according to paragraph 6 of the agreement in case I do not erect a factory at Darjeeling after two years.

As Senchal II is situated far away into the forest and as the expenses of labour and carting run high, it would be difficult for me to compete with local contractors who work at more advantageous localities the following table will show:—

	Royalty per c.ft.	Cutting and carrying charge to Darjeeling per c.ft.	Cost per c.ft.	Selling price per c.ft.
	As.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Chap	8	0 12 6	1 4 6	2 0 0
Pipli	8	0 12 6	1 4 6	1 3 0
Bup Phalat Kalus	6	0 12 6	1 6 6	1 3 0
Kowlaw Lalli	4	0 12 6	1 0 6	1 1 0

Charcoal.

13 bags of charcoal—130 c.ft. of wood.

	Rs. A. P.
Royalty at Rs. 2 per c.ft.	2 12 0
Cutting	5 8 0
Carrying to Sisis Kusa	4 0 0
Cart hire to Darjeeling	4 0 0
	<hr/>
	14 4 0

Selling price at Darjeeling varies from Rs. 14 to Rs. 16. Rs. 14 in the off season from November to March and Rs. 16 from April to October.

It may be mentioned that felling in Senchal II is backward on account of its inaccessibility.

According to paragraph 5 of the agreement, I shall remove the timber from all trees felled under this agreement to a depôt or depôts and the measurements are to be made by the Forest Officer but from the contractors I learn that it is impossible for me to remove those trees to the depôts before they are sawed. But they are to be sawn at the place of felling, and also charcoal has to be made inside the forest from the firewood. Hence, the standing trees are to be estimated according to the current forest rules.

Under the circumstances I humbly beg that you may be pleased to grant me the following prayers:—

- (1) That I shall be exempted from paying Rs. 1,000 a year and be allowed to pay the actual royalty for the matchwood which I will extract.
- (2) That I shall be exempted from paying the security deposit of Rs. 5,000 mentioned in paragraph 6 of the agreement.
- (3) That the royalty be lowered for (1) Pipli from 8 annas to 6 annas, (2) Buk, Phalat and Katus from 6 annas to 4 annas and (3) Kowla from 4 annas to 2 annas per c.ft. and for firewood (a) hardwood from Rs. 4 to Rs. 3-8, and (b) soft wood from Rs. 2 to Re. 1-8 per 100 c.ft.
- (4) That standing trees are to be estimated according to the current forest rules and that the depôts mentioned in paragraph 5 of the agreement be omitted.
- (5) That in case the Government are not willing to reduce the annual royalty for other timbers and firewood, I would be permitted to extract only matchwood by selection felling, that is to say, felling those trees which are suitable for matches by my own agency and taking from me the royalty at the current rate. This is to continue for 20 years until plantations suitable for matchwood are ready.
- (6) That pending the disposal of this representation, I may be exempted from paying Rs. 1,500 which will fall due in March 1926.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) SAIENDRANATH MITRA.

Enclosure No. 4.

GOVERNMENT OF BENGAL.

REVENUE DEPARTMENT.

FOREST BRANCH.

No. 227-T. R.

From

W. S. HOPKINS, Esq., O.B.E., I.C.S.,
Secretary to the Government of Bengal,

To

Babu SAIENDRA NATH MITRA,
94, Bokulbagan Road, Calcutta.

Darjeeling, the 15th May 1926.

SIR,

I am directed to refer to your letter of the 20th March.

Government do not propose to make any claim against you for damage or compensation on account of the cancellation of the lease.

With reference to the question of rates, it appears that under the present scheduled rates, part of the wood which you would require for the manufactory of matches would be classed as timber and part of firewood. As this would probably cause inconvenience to you as well as to the Forest Officers, the Conservator of Forests has arranged that there shall be a separate rate for matchwood taken from Senchal Block II; he has fixed this for the present at one anna per cubic foot, and matchwood is defined as "pieces of wood of species classed "D" and "E" which are *bonâ fide* intended for conversion into match splints and match boxes." If you remove timber or firewood not covered by this definition, you will be charged for them at the ordinary scheduled rates; but if you take only the matchwood, then any timber or firewood left by you will be sold by the Forest Officer to other persons.

A copy of this letter is being sent to the Conservator of Forests, to whom any further communication should be addressed.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) W. S. HOPKYNs,

Secretary to the Government of Bengal.

Enclosure No. 5.

GOVERNMENT OF BENGAL.

REVENUE DEPARTMENT.

FOREST BRANCH.

No. 235-T. R.

From

W. S. HOPKYNs, Esq., O.B.E., I.C.S.,

Secretary to the Government of Bengal,

To

Babu SAILENDRA NATH MITRA,

94, Bokulbagan Road, Calcutta.

Darjeeling, the 26th May 1926.

SIR,

I am directed to refer to your letter of the 20th May 1926, in which you agree to the cancellation of the lease, dated the 10th March 1925. The Conservator of Forests is being informed that the lease is cancelled.

I think that you must be mistaken in stating that I asked the Divisional Forest Officer to charge firewood rates for the wood which you require. I do not remember making any such request to him and my letter No. 3136 of the 19th March 1926 shows that it was agreed that royalty should be paid at the ordinary scheduled rates. If you are unable to pay the rate of one anna per cubic foot, the proposed arrangement for the supply to you of matchwood must be dropped. As requested in my letter of the 15th May, any further communication which you may wish to make on this matter should be addressed to the Conservator of Forests and not to me.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) W. S. HOPKYNs,

Secretary to the Government of Bengal.

Enclosure No. 6.

8th January 1927.

To

The Divisional Forest Officer,
Darjeeling Division,
Darjeeling.

SIR,

I have the honour to acknowledge the receipt of your letter No. 1349—17-7 of the 21st ultimo last enclosing two copies of the agreement. I am willing to deposit Rs. 250 as you have stated in your letter but I would request you to consider the clauses 3, 4 and 5 and to modify them as I am suggesting below:—

Clause 3.—As all the portions of the trees will not be required for match sticks and boxes such as the branches and the portions which are with knots or which may be hollow so I will be permitted to sell them locally to the persons who will require them for making charcoal and fuel.

Clause 4.—That if any of my agents fell any trees which are not marked for me then I will be liable to pay to the Forest Department the price of the said tree and the Forest Department may prosecute the coolies, workmen or servants of mine criminally under section 25 of the Indian Forest Act, 7 of 1878, for in that case I can realise by fines the price which I will have to pay to the Forest Department.

Clause 5.—The whole of the security money may be forfeited if the price of such trees felled amounts to that amount and the Forest Officer shall not take any criminal proceedings against me for I will be far away in Calcutta when this felling will be done and I cannot be made responsible criminally for this.

Kindly modify these three clauses accordingly and send them to me and I will duly execute it and send the same back to you with Rs. 250.

In the last paragraph of my letter of the 2nd ultimo I requested to send me two pieces each 18" long and 3' or 4' in girth of the following species and if they are found to be suitable for matchsticks or boxes then kindly include them in the Agreement and they are to be marked as well with the other six kinds.

1. Bhadrasi.
2. Maya.
3. Jhingi.
4. Barkholi.
5. Gobra.
6. Mallata.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) SAILENDRANATH MITRA.

Enclosure No. 7.

GOVERNMENT OF BENGAL,
OFFICE of D. F. O., DARJEELING DIVISION,
FOREST DEPARTMENT,
No. 92—17-12.

From

S. CHAUDHURI, Esq.,
Divisional Forest Officer,
Darjeeling Division,

To

Mr. SAILENDRA NATH MITRA,
94, Bakulbagan Road, Calcutta.

Dated 19th/20th January 1927.

SIR,

With reference to your letter No. *N/1*, dated the 8th instant, received in this office on the 13th instant I have the honour to send herewith the draft agreement in duplicate after modifying clause 3 to enable you to dispose off parts not suitable for matchwood as fuel or charcoal. As it will not be paying for you to buy parts at 1 anna a c.ft. and sell them as fuel item (iii) of clause 1 and line 2 of clause 2, have been modified according to the current schedule of rates of this Division.

Referring your objections about clauses 4 and 5 please note all contractors of this Division have been working on those terms for all kinds of forest produce and they cannot be modified in your case.

As for your request to send certain pieces for experiment please inform if you are prepared to pay the royalty at the rate of 5 annas per c.ft. for Maya and 3 annas per c.ft. for others and the cost of conversion and extraction up to the nearest railway station, say, at 5 annas a c.ft. I shall only charge for parts despatched to you and not for the whole tree as it is for experiment. I do not think it will be advantageous to either side to include these six species in the list for the current year.

Please note further that unless the security is deposited before the 31st of the current month and the agreement executed, it will not be possible to mark the area and submit the list of available trees within the 28th of February 1927.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) S. CHAUDHURI.

Divisional Forest Officer,
Darjeeling Division.

6th February 1927.

Enclosure No. 8.

To

The Divisional Forest Officer,
Darjeeling Division,
Darjeeling.

Sir,

I have the honour to acknowledge the receipt of your letter No. 92—17-12 of the 20th ultimo enclosing a modified agreement which reached me on the 24th, because I am now staying in the interior of the Midnapur District and hence the delay in my answering your letter.

I beg to point out that the entire Senchal II Forest was leased out to me by the Government of Bengal but when the annual coupe of 40 acres was marked then it was found that the species required for matchwood are very small and I pointed this out to Mr. Hopkins, the Secretary, Revenue Department of the Government of Bengal, and also other facts on the subject and he has very kindly asked me to give up the lease and ask the Divisional Forest Officer to allow me to fell the species which I want for match sticks and boxes from the whole of the Darjeeling Division Forest and which will be sold in the next year and which as far as I remember will be nearly 150 acres or more. Kindly put the same in the top of the agreement.

As regards the paragraph III of the agreement I beg to suggest that I will only pay one anna per cubic foot of the portion of the trees which I will take out and the remaining portion which will be unsuitable for my purpose will be left in the forest and the Forest Department will sell them.

As regards paragraph IV, I beg to suggest that you shall not classify me in the same class of contractors who fell your forest for the purpose of making money by felling the timber and selling them in the locality. So kindly omit that clause about prosecuting me if my people fell any other trees than which are marked for me.

I am willing to pay the royalty and cooly hire which the Forest Department will incur for sending the sample of the six species mentioned in my previous letter. Kindly arrange to mark them distinctly and send them with bark on and the ends covered with cowdung or mud by Goods Train to Kalighat Station, Eastern Bengal Railway, and in the letter which will enclose the Railway Receipt the names of species will be mentioned against each number and enclose your Bill for this and the price will be sent by Money Order.

I am at present staying in the interior of the Midnapur District and will return to Calcutta by the middle of this month, so you will kindly excuse me for the delay in sending you the amount and executing the agreement.

I have the honour to be,

Sir,

Your most obedient servant,

(Sd.) SAILENDRA NATH MITRA.

Enclosure No. 9.

GOVERNMENT OF BENGAL.
OFFICE OF THE DIVISIONAL FOREST OFFICER,
DARJEELING DIVISION.
FOREST DEPARTMENT.
No. 258—17-12.

Dated the 17th February 1927.

To

Mr. SAILENDRA NATH MITRA,
94, Bakulbagan Road, Calcutta.

Memorandum.

Your letter, dated the 8th February 1927.

Reference.—Paragraphs 1 to 4 and 6 no further consideration can be made; and in case you propose to work you will please send the security money and the agreement without further delay.

Reference.—Paragraph 5, the specimen will be despatched when ready.

(Sd.) S. CHAUDHURI,
Divisional Forest Officer,
Darjeeling Division.

Mr. M. N. Mehta's, Factory, Calcutta.

Letter dated the 19th April 1927.

In reply to your letter we herein enclose 6 copies duly replied to all the questions and shall be pleased to give our evidence before your Board whenever we are called for.

The following are the replies of the Match Industry questionnaire:—

1. The firm of M. N. Mehta was established in the year 1879 by Mr. M. N. Mehta in person. The firm is a private one and a registered one.
2. Rs. 5,00,000. Doing business in partnership. All are Indians (Parsees). Not a single European is employed by us.
3. We manufacture the whole process of matches at our plant.
4. The match factory was started on the 15th November 1925.
5. The full capacity of our daily output is 2,500 gross for the manufacture of complete matches and boxes.
6. The dimensions of the match boxes, half size are $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{2}{8}$, and for the full size $2\frac{1}{2} \times \frac{13}{8} \times \frac{1}{8}$. The half size boxes contain 60 to 70 sticks and the full size 80 to 90.
7. The actual output of our firm in the year 1925-26 was 6,000 cases or 8 lakhs gross.
8. Our factory is situated at Nos. 104 and 80, Ultadingi Main Road, and we find advantageous under the items (a) Yes; (b) Yes; (c) Yes; and (d) Yes. We consider the most important factor in selecting the site of a match factory is the place where abundant matchwood and labour are available, together with transport facilities.
9. (a) Yes. Indian matches fall short of the standard of imported matches, owing to inferior quality of local wood used at present, and the second cause is that the industry is in its infancy.

(b) There is a prejudice against Indian-made matches for the present, owing to the importation of Japanese and Swedish matches. They are gaining in reputation in the market up till now. The Indian matches in comparison to two years before were inferior, but since the last two years all Indian match factories have been manufacturing matches under expert directions, and hence there remains a likelihood to overcome the prejudice.

(c) We consider the difference of Re. 1-6-0 to Re. 1-8-0 in price per gross to be sufficient to overcome the prejudice against Indian matches.

Raw materials.

10. (a) Yes. A portion from Siberia for keeping the standard of the quality with imported matches.

(b) No.

10. (c) No.

(1) C.i.f. price per ton is £9.

(2) Kobe.

(3) Do not know.

(4) Rs. 6 per ton.

(5) Rs. 4 per ton.

(6) 15 per cent.

11. Genanwa.

12. The local wood is not as satisfactory as the imported Aspen. It is inferior in respect of colour and slightly in strength.

We understand that best Indian wood is available, but on account of the heavy transfer charges, the business in Indian wood falls off.

(a) No.

(b) Yes.

(c) No.

13. (a) The annual requirement of wood according to the present rate of output is 6,000 logs of Espen wood for making sticks.

(b) According to the rate of output equivalent to the full capacity of the plant, it should be 10,000 logs. With the above we buy local Genanwa and Jury woods for making boxes and splints. Monthly about 10,000 logs.

14. The quantity of wood required for the manufacture of 100 gross boxes of finished matches for sticks 12½ cubic feet of Aspen and for boxes 35 cubic feet.

15. The standard size of the packing case, full size is 40"×26"×27", and for half size 36"×31"×20", and the quantity required we do not know. 50 gross boxes can be packed for full size and 100 gross for half size.

16. We buy the local wood from the canal situated very near our factory where the same comes in boats from the Sunderbands. We regret we are unable to produce a map showing the site of the factory and the areas from which supplies are drawn.

17. We have no connection with agencies.

18. We do not pay anything as we simply buy.

19. As we do not extract the wood ourselves we are unable to answer the questions.

20. Same reply as above.

21. The local wood has been found to contain deterioration sometimes, but otherwise the supply has been O. K. The supply up to the present moment has been constant.

22. As the supply has been found at present to be constant and boats always ready, we have always been able to get our supplies without seeking greater distances.

(a), (b), (c) and (d) do not require answers.

23. Till late we have found unnecessary to draw supplies from new areas.

24. The factory is short of its sufficient supply of suitable wood and no steps have been taken to plant trees suitable for the match making industry within a reasonable distance of our factory.

25. We have not yet extracted any wood.

Other raw materials.

26. Raw materials other than wood are:—

Chlorate of Potash, Emorphos Phosphorus, Glue, Zinc sheets, manganese, Rosin and Paraffin.

27. Chlorate of Potash	12 lbs.
Flour sulphur	1 lb. 6 oz.
Glass powder	3 lbs.
Manganese	2 „
Rosin	1 lb.

28. (a) All those stated in question 26 are imported from abroad.

(b) Paraffin wax from India.

(c) We do not manufacture.

29. Manufactured in India:—

Chlorate of Potash, Manganese oxide, Antimony-sulphide black.

Labour.

30. We are not extracting.

31. It is necessary to some extent to get skilled labour from abroad, as the match industry is in its infancy. We have 5 experts at present.

32. About 6 imported labourers.

33. The Indian workmen are being trained under skilled Japanese experts and are thereby conversant with the machines for the match manufacture.

34. The total number of Indian labourers employed by us are about 600; 150 women, 200 boys and 250 men, and the average daily wages come to about Re. 1-8-0 a day.

35. Yes. All the workmen are drawn from the vicinity of the factory.

36. Yes. The Indian labourers all seem to be improving with the training. Owing to the lack of proficiency, the output was less when the plant's capacity was much more, but now by experience we are able to cope with the desired output as per the plant.

37. No arrangements have been made for the housing of our labourers except the skilled workmen from Japan whereas all the Indian labourers being of the near vicinity live in their own houses.

Power.

38. All by electricity.

39. From the Calcutta Electric Supply Corporation. The cost per unit is 2 pice, plus Rs. 5-4-0 per kilowatt.

We do not know the cost of comparison between India and other countries.

40. We use no steam and hence we have no necessity of fuel.

41. One unit produces 18 gross of matches.

42 and 43. Cannot answer. No arrangement of steam.

Market.

44. In India consumption of about 20 millions gross boxes per year, out of which Bengal alone consumes 6 millions gross boxes per year.

45. The demand for the matches will be the same.
 46. Our chief market is the whole province of Bengal.
 47. We are in port.
 48. (a) Large importation of foreign matches in all the markets of India is from Sweden.
 (b) Yes. We have reason to suppose that there is illicit importation of foreign matches in India. Many Native States such as Jamnagar, Porbandar and other places, without paying the duty as is paid in British India, could successfully compete with Indian markets.

Competition.

49. From Japan and Sweden.
 50. Even with the existing duty the foreign made matches are still being imported owing to the prejudice for local matches, but in years to come, we are of opinion that we can stand on our own.
 51. (1) The price at which imported matches entered the country in the year 1925-26 was Rs. 2-6-0 per gross and sold at Rs. 2-10-0 and Rs. 2-12-0.
 (2) We established in 1925 and we are not using the Indian wood for splints, but at present we make them out of the Indian wood. We realise about Re. 1-8-0 per gross for Genwa.
 (3) The price realised from matches manufactured from imported wood when we established was Re. 1-15-0 and Re. 1-13-0. The c.i.f. price for imported matches comes to about annas 14 to Re. 1, on which, if the landing and duty be added, it works out to about Rs. 2-6-0 to Rs. 2-8-0 per gross.
 52. From local merchants.
 53. (a) Yes.
 (b) No.
 (c) Yes. From our Japan friends.
 54. (a) Yes.
 (b) Yes.
 (c) Much higher.
 (d) As regards costs, it is higher on account of unskilled labour.
 (e) Much higher.
 (f) Same.
 (g) We import.
 (h) Should be abolished.
 (i) No.
 55. Items (a), (d) and (h) are permanent; and the rest are temporary, but will be alright as soon as the match industry is on its footing. We require the protection for 12 years.

Equipments.

56. Yes. The smallest unit of production should be about 1,250 gross daily.
 57. 50 per cent. outlay.
 58. (a) 11 Veneering machines.
 3 Splints-chopping machines.
 4 Box-chopping machines.
 25 Box-making machines.
 25 Frame-filling machines.
 10 labelling machines.
 8 Emptying machines.
 1 Box-filling machine.
 1 Dozen packetting machines.

- 2 Paraffin machines.
- 6 Splints-levelling machines.
- 2 Circular saws.
- 3 Side-painting machines.
- 1 Compound-mixing machine.
- 1 Gilletting machine, etc.

(b) Nothing special.

59. (a) Are quite up to date and are capable to successfully compete with imported matches.

(b) Except the box-filling everything is done by machinery.

60. (a) Nothing is at present necessary.

(b) We cannot say anything definite.

61. Almost all particulars of machinery can be made in India.

Capital Account.

62. (a) On lease.

(b) On lease.

(c) Rs. 54,000.

(d) 2 Lakhs.

(e) 1 Lakh.

63. Actual cost 3 Lakhs. We have written off Rs. 6,000 as for depreciation last year.

64. Depreciation ought to be Rs. 15,000.

65. Would be the same.

66. Have started only last year.

67, 68, 69, 70, 71, 72, 73 and 74. Being private company requires no answers.

Working cost.

75. (1) Cost of weed for splints and veneers	7 annas per gross.
(2) Cost of paper	1½ " " "
(3) Cost of chemicals	2½ " " "
(4) Cost of other raw materials	2 " " "
(u) Factory labour	7½ " " "
(v) Power and fuel	1 " " "
(7) Ordinary current repairs and maintenance of buildings, plants and machinery	1½ " " "
(8) General services, supervision and local office charges	1 " " "
(9) Miscellaneous, e.g., rent, municipal taxes, insurance, etc.	1 " " "
(10) Cost of packing cases	2 " " "

TOTAL Rs. 1 11 0

76 and 77. We have not adopted the cost-sheet system.

78. Do not know.

79. 6½ per cent. on the machinery and 2½ per cent. on building. We consider that the rates of depreciation should be 20 per cent. on account of Japanese match-machines not being durable.

80. Rs. 6,000, for machinery and Rs. 1,500, for building.

Working capital.

81. (1) 1½ Lakhs.

(2) 2 Lakhs.

82. Yes.
 83. Not borrowing.
 84. Rs. 75,000 per month.
 85. (a) About Rs. 2,600 daily.
 (b) About 3 months.
 86. The raw materials stored up to the average value of Rs. 1 lakh.
 87 to 90. Being a private company have no agents.

Manufacturer's profit.

- 91, 92 and 93. Being a private company we have no need for all that.

Claim for protection.

94. (a) The chief raw material in the manufacture of matches is wood, which is available in abundance in Burma as well as in India, and if some of the factories have to rely upon imported wood, it is because of the lack of proper development of forest resources rather than to the advance of suitable wood in sufficient quantities.

As for chief power the industry has not experienced any difficulty. The supply of labour required for this industry is more than what it is required, and with India it will never be a question of anxiety. It has, for the present, to rely to some extent upon imported skilled technical labour but in a few years' time this kind of labour will also be available in sufficient number. The third advantage which India possesses naturally is an extensive home market at hand.

(b) The industry must be one which, without the help of protection is not likely to develop at all, or is not likely to develop so rapidly as is desired in the interests of the country. It was in 1922 that when the duty of Re. 1-8-0 was levied by the Government for revenue purposes, this high rate of duty served as a protective measure to the match industry and now it promises to develop if there is no interference from foreign competition.

(c) We confidently believe and claim that the match industry, if allowed to develop on the lines suggested above, will in a few years' time, be able to face the world competition without any protection from the Government.

95. (a) Yes.

(b) Yes.

96. Yes. Large Indian labour is being utilised by this industry and whatever profit is derived remains in India.

97. (a) The existing duty is Re. 1-8-0 per gross.

(b) The landing and other charges are annas 2 per gross.

98. The amount of protection which we consider necessary is Rs. 3 per gross. It is the sole aim of the foreign manufacturers to cripple Indian industry which is still in its infancy.

99. The following form of assistance, other than protective duty, is recommended:—

(a) That suitable wood which we believe exists in abundance in Indian forests and which is the chief raw material in the manufacture of matches, must be made available to the match manufacturers by Government taking up the research work in all seriousness and by affording every facility for its transport by cheap railway and steamer freights.

(b) A special protection should be given against the foreign competition of the Syndicate, which is not a *bonâ fide* concern and whose activities should not be allowed to be successful. It is, therefore, suggested that a discriminating excise duty on the products of the factories, financed wholly or mainly by foreign capital, should be levied, but under no circumstances should any burden be

imposed on the factories run purely by Indian capital and Indian enterprise.

- (c) That the present import duty of Re. 1-8-0 per gross should be raised to Rs. 3 and declared as a protective duty and should be maintained at the same rate, as this industry—if allowed to develop on right lines—will soon be in a position to get over the technical difficulties and that the industry will provide employment to thousands of labourers.
- (d) That proper control should be exercised on the imports of foreign matches into Native States by transhipment methods which are likely to result in a deficit in the Custom duty by the transhipment right being abused.
- (e) That in course of time, if proper encouragement is given by the Government, it is believed that even all the chemicals and paper required in the manufacture of matches will be available in India and the match industry will be in a position to cope with the full demand of the country in a few years' time. So it should be allowed to develop on right lines and the industry be treated as a national industry as it supplies an every day's necessity of life.

The Esavi India Match Manufacturing Company, Calcutta.

Letter, dated 20th April 1927.

We beg to enclose herewith our answers to your questions and shall thank you to acknowledge receipt.

Answers to questionnaire.

1. The firm was established in October 1923. It is a proprietary firm.
2. Capital subscribed by Indians 70 per cent.; 30 per cent. held by Japanese. Under Indian control and management. No Europeans are employed.

3. We undertake the whole process of manufacture.

4. In December 1923.

5. At present we produce about 4,000 gross of matches and boxes per day.

6. The dimensions of match boxes are:—

Full size $2\frac{1}{8}'' \times \frac{3}{16}'' \times \frac{1}{8}''$ and contains about 80 to 90 splints.

Half size $1\frac{3}{8}'' \times \frac{1}{4}'' \times \frac{9}{16}''$ and contains about 60 to 70 splints.

7. Our output in the year 1924 33,650 gross.
1925 600,500 „
1926 864,500 „

8. At 36-A, Hogulkuria Gully and at 46/1/1, Muraripur Road, Manicktola in the town of Calcutta.

(a) Yes.

(b) Yes.

(c) Yes.

(d) Yes.

The most important factor in selecting the site of a match factory is where wood is in abundance and all transport facilities cheap enough to compete with imported matches.

9. (a) Yes, Indian matches fall short of the standard of imported matches where local wood is used owing to the inferior quality of the wood. Second cause is its infancy.

(b) There is a prejudice against Indian made matches for the present. Up to the present the market was held by Swedish and Japanese matches

only and what was manufactured here was much inferior in comparison and so they gained the reputation, but since the last 2/3 years, big factories have started under expert advice and there is every likelihood of getting over the prejudice.

(c) We consider a difference of annas 12 to annas 14 in price per gross to be sufficient to overcome the prejudice against Indian matches.

10. (a) Yes. A portion from Siberia to keep up the standard of quality with imported matches.

(b) No.

(c) No.

We import Siberian wood from Japan.

(1), (2), (3) C.I.F. price Rs. 120 per ton of 50 cubic feet.

(4), (5) Rs. 10 per ton.

(6) 15 per cent.

11. (a), (b) and (c) Gangwa wood (*Excoecaria Agallocha*).

12. (a) The local Gangwa wood is not as satisfactory as the Aspen wood. It is inferior in respect of colour and slightly in strength.

(b) and (c) Satisfactory.

13. (a) Annual requirements of wood are 6,000 tons. Daily output is about 3,500 gross.

(b) About 6,900 tons.

14. 35 cubic feet per 100 gross of boxes of finished matches of full size.

15. *Size of the packing cases.*—Full size 40×26×27 inches containing 50 gross of matches. Half size 36×31×28 inches containing 100 gross of matches.

16. We purchase from local markets.

17. Wood is transported by means of boats from the Sunderbands into the Canals at Manicktolla, Calcutta.

18. We buy from the local dealers.

19. We make local purchases.

20. We ourselves do not extract wood from forests. We make local purchases.

21. Fresh wood can always be had from local markets.

22. At present the supply of wood is quite ample as long as it is used for making match boxes only, we may feel the scarcity as time goes on owing to a gradual diminution of the supplies from the areas from which they are taken. Suitable wood exists in abundance in Indian forests, and must be made available to the match manufacturers by the Government undertaking the research work and by affording every facility for its transport by cheap railway and steamer freight. Government should also take steps to replant these places from which trees have been cut down.

23. No necessity as yet has arisen to draw supplies from new areas.

24. Yes, we are assured of a sufficient supply of suitable wood for a few years. No steps have been taken to plant trees of a kind suitable for the match making industry.

25. We ourselves have not as yet extracted wood from forests.

26. Other than wood, the following raw materials are required, namely:—

Paper, Zinc Sheets, Glue, Amorphous Phosphorus, Chlorate of Potash, Dextrine and other Chemicals.

Total amount of raw material required in one year.

	lbs.
Chlorate of Potash	259,350
Iron Dioxide	8,645
Iron Manganese	6,484

	lbs.
Infusorial earth	4,322
Sulphur	17,290
Glass powder	1,080
Dextrine	12,967
Bichromate of Potash	8,645
Glue	4,322
Red Phosphorus	17,290
Sulphuric Antimony	2,161
Iron Oxide	2,882
Soot	4,322
Paraffin	86,450
Paper	432,250
Zinc sheets	134,400

27. Quantity of materials required per hundred gross matches:—

	lbs.
Chlorate of Potash	35
Iron Dioxide	1
Iron Manganese	$\frac{1}{2}$
Infusorial earth	1
Bichromate of Potash	1
Sulphur	2
Glass powder	$\frac{1}{2}$
Dextrine	$1\frac{1}{2}$
Glue	$\frac{1}{2}$
Red Phosphorus	2
Sulphuric Antimony	$\frac{1}{2}$
Iron Oxide	$\frac{1}{2}$
Paraffin	13
Soot	$\frac{1}{2}$

28. (a) All as stated in answer to question No. 26 are imported from abroad.

(b) None.

(c) None.

Case—(a) Chlorate of Potash, Amorphous Phosphorus, Paper and Zinc are imported from the continent and other Chemicals from Japan.

(b) Chlorate of Potash per ton £33 c.i.f. Amorphous Phosphorus per ton £220 c.i.f. Blue match paper £31 per ton c.i.f. Zinc sheets £50 per ton c.i.f. Green paper £24 per ton c.i.f.

(c) Calcutta from Europe and Japan.

(d) We buy c.i.f.

(e) Rs. 3 per ton.

(f) Rs. 7 per ton.

(g) Customs duty 15 per cent.

29. Chlorate of Potash, Manganese Dioxide, Sulphide black, Sulphuric Antimony are manufactured in India, but are not as yet up to the standard. If the match industry is allowed to be developed, there is every hope that they will be improved and all the remaining chemicals will be ultimately manufactured in India.

30. We are not extracting yet.

31. Three or four experts are required during its infancy.

32. We have no imported labourers under our employment save the experts.

33. The labourers are being trained by the said experts and the labourers personally do all works requiring skill under the directions and advice of the experts. The labourers are now working in every branch of the factory.

34. 1,500 workmen of whom about 700 are women and children. A male worker gets from Re. 1-8-0 to Rs. 2 per day. Women and children get from annas 8 to Re. 1-4 per day.

35. From the vicinity of the factory.

36. Yes. They are improving gradually with training.

37. Arrangements for housing the labourers are not necessary because the labourers have got their own houses in the neighbourhood of the factory.

38. Electricity and steam power. (Mostly electricity.)

39. Electric supply by the Electric Supply Company, Limited, cost from $\frac{1}{2}$ anna to $1\frac{1}{2}$ annas per unit.

40. Coal and waste wood are used as fuel. Available in sufficient quantities.

41. Mostly electricity used. 1 unit of electricity produces about 20 gross of matches.

42. Coal Rs. 13 per ton free factory delivery.

43. Mostly electricity.

44. About 14,000,000 gross boxes.

45. We think the demand will increase with the necessary Government protection.

46. In Bengal.

47. None, because we are in port and from where railway and steamer freight is the same for locally made and imported matches.

48. (a) At present about $\frac{1}{3}$ rd of the total consumption of matches in India is imported from abroad.

(b) It is alleged that matches are being imported through the Native States into British territory thereby evading a certain portion of the duty with the result that they successfully compete with Indian manufactured matches.

49. Sweden and Japan.

50. The competition is really coming from the matches made in India as against the matches made abroad. This is only possible as long as protective duties are imposed, during the early exploitation in local industry.

51. Swedish matches were sold at the average rate of :—

In the year 1924	Rs. 2 11 0 per gross.
1925	Rs. 2 11 0 „
1926	Rs. 2 11 0 „

Japanese matches were sold at the average rate of :—

In the year 1924	Rs. 2 10 0 per gross.
1925	Rs. 2 8 0 „
1926	Rs. 2 6 0 „

Our and Indian matches were sold at the average rate of :—

In the year 1924	Rs. 2 4 0 per gross.
1925	Rs. 1 15 0 „
1926	Rs. 1 11 0 „

52. From local merchants.

53. (a) Yes.

(b) No.

(c) Yes. This is current knowledge in the local market.

54. (a) The Indian manufacturer is at a disadvantage with regard to freight and duty.

(b) Cost of expert labour is much higher.

(c) As regards costs it is higher on account of inexperienced hands. As stated above, the ordinary labourers are inexperienced but they are improving daily under the directions of the experts and within a further eight years they will be efficient.

(d), (e) and (f) We are not at a disadvantage.

(g) We have to keep two months' extra stock.

(h) Customs duty on imported materials should be abolished to protect match industry in India and to enable us to compete with imported matches.

(i) Not at a disadvantage.

55. With regard to items Nos. (a) and (h) disadvantages are permanent. The rest temporary and are likely to operate for a period of about 8 to 10 years.

56. Yes. The smallest unit of production should be about 1,500 gross per day.

57. 60 per cent.

58. (a) (i) 50 gross frame-filling machines. (ii) 15 frame-emptying machines. (iii) 20 labelling machines. (iv) 35 box-wrapping machines. (v) 12 veneer-peeling machines. (vi) 10 splint-making machines. (vii) 2 grinding machines.

(b) No special arrangement.

59. (a) Our machinery and other equipment are quite up to date and efficient to compete successfully with imported matches.

(b) Box-filling, box-painting, dipping, packing and a certain portion of box-wrapping are done by manual labour.

60. (a) No important replacement of the existing plant in our factory is at present necessary.

(b) We may extend.

61. Any part of the machinery can be made in India.

62. (a) and (b) On lease. Leasehold property.

(c) The value of some buildings erected by us is about Rs. 97,000.

(d) Rs. 2,43,000.

(e) Rs. 1,25,000.

63. The actual cost has been set out. Depreciation Rs. 15,000.

64. Less than the sums which ought to have been set aside. Rs. 39,000 ought to be set aside on depreciation.

65. The costs under the heads (a) and (b) would be the same.

66. Sums spent on the purchase of plant and machinery:—

	Rs.
1924	1,65,000
1925	84,000
1926	91,000

67. This is a Proprietary Company.

68. This is a Proprietary Company.

69. This is a Proprietary Company.

70. This is a Proprietary Company.

71. This is a Proprietary Company.

72. This is a Proprietary Company.
 73. This is a Proprietary Company.
 74. No replacement and extension at present contemplated.
 75. Forms attached herewith.
 76. Works cost not increased.
 77. No.
 78. No.
 79. 6½ per cent. on machinery. 2½ per cent. on building. We suggest a depreciation of 15 per cent. on machinery as match-making machines are too delicate.
 80. (a) Rs. 17,612-8.
 (b) Rs. 16,675.
 81. (1) Rs. 2,50,000.
 (2) Rs. 3,50,000.
 82. Proprietary Company. Yes.
 83. Question does not arise.
 84. Costs of one month's output will be Rs. 1,35,000.
 85. Rs. 50,000. About a month.
 86. It is necessary to hold stocks of raw materials to sustain the factory for two months. Average value of the stocks held is Rs. 1,25,000.
 87. No. The company has no other head office except an office of local management. It is not under the control of a firm of managing agents.
 88, 89 and 90. We have no agents.
 91, 92 and 93. This is a Proprietary Company.

94. (a) The most important raw material used in match manufacture is wood which is available in abundance in India and if some of the factories have to rely to a certain extent upon imported wood it is because of lack of proper development of forest resources in this country rather than to the absence of suitable wood in sufficient quantities. It is a known fact that India abounds in large forests which can yield sufficient quantities of wood for match manufacture, but the constant cutting out of woods suitable for manufacture will within a space of time deplete the forests of such woods; so the Government of India should take steps to start plantations of match woods at once. It will also be highly disadvantageous and costly if the match manufacturers have to extract match woods from far distant country when they can have it from nearer forests at less costs if the Government of India takes little pains to start plantations of match woods.

As for cheap power, the industry has not experienced any difficulties. The supply of labourers required for match industry is more than what is required and with India it will never be a question of anxiety. India will have constantly abundant supply of labour. As the said industry is in its infancy it has for the present to rely to some extent upon imported skilled technical labour but in a few years' time this class of labour will also be available in sufficient number. That there is a large home market for matches can hardly be disputed as they are an article of daily necessity even to the poorest of the population.

(b) Prior to the year 1922 when the present rate of import duty, viz., Re. 1-8-0 per gross was levied efforts made to start the industry in India were not successful and she was entirely dependent on foreign matches but as soon as the rate of duty was raised to the present figure numerous match factories were established in India because the high rate of duty, though levied for revenue purposes, served as a protective duty. The fact that the match industry in India showed good progress only after the import duty on matches was raised to the present figure is sufficient indication to show that the match industry is one which is not likely to develop without the help of protection.

(c) During the brief period of its existence the industry has shown steady progress in spite of the many difficulties which a new industry has of necessity to face. We confidently believe that the match industry will in a few years' time be able to stand on its own legs and face the world competition without any protection from the Government.

We hope that what has been stated about will convince the Tariff Board that the match industry fulfils all the conditions laid down by the Indian Fiscal Commission and is therefore fully entitled to be protected.

95. (a) During the brief period of the existence of the industry the industry has improved so much that one-third or perhaps more of the total consumption of matches in India is manufactured in India and we confidently believe that the industry is one in which the advantages of large scale production can be achieved and it is quite evident that increasing output would mean increasing economy of production.

(b) We are sure that in course of time the whole needs of the country could be supplied by home production. A German match expert says "It is well known that India is to-day the best customer for Swedish matches." This is solely due to lack of enterprise and difficulties in obtaining timbers suitable for match manufacture. Lately, however, things have considerably improved. In fact some of the Indian business men are at present very keen on starting match factories in India and lately some well equipped factories have been started. It is almost certain that in course of time India will be able to produce her own matches and then the import of foreign matches chiefly of Swedish make will stop automatically.

96. The most important feature which makes the industry peculiarly suitable to Indian economic conditions is the employment of a large number of Indian labourers. Hundreds of village women and children also get their employment in the factories. Even hundreds of village women do work such as pasting veneers at their homes during their leisure hours. During the last four years, numerous match factories have sprung up which are not only employing a large number of workmen as aforesaid in the factories but which have also created work for labourers in forests.

97. (a) Re. 1-8 per gross.

(b) Annas 2 per gross.

98. The present existing protection is sufficient.

99. One of the most important considerations the Tariff Board should give, in considering the protection to be afforded to the growing match industry of India, is to prevent the overriding power of foreign Trusts in crushing the increasing efforts of Indians to produce matches in this country. By reason of the command of vast capital the Swedish Trust which has at its call a matter of about 25 crores of rupees makes profits approximately of 12 per cent. or three crores per annum; it accordingly can easily afford to lose a matter of 50 lakhs per annum which can be spent in crushing out of existence the Indian industry which is now in its infancy and with appreciably no material loss to the Trust.

The small capitalist has to go and the consequent interest of the Indian investing public also has to go if the Trust is allowed to monopolise the Indian market.

At the present time they are underselling the Indian manufacturers and the process of elimination has already begun.

There is no question that if protected the Indian industry can in a few years' time compete on favourable terms with Foreign Trusts but time, instructions and confidence in the industry must be given to the Indian manufacturers and investing public to enable this to be done.

The materials to allow of this to be done are within the boundaries of India suitable wood is available as well as the other raw materials. We would accordingly recommend that Trust such as the Swedish one be taxed to a degree which will enable the Indian industry to develop and stabilise.

Form I.—Statement showing total expenditure on the production of matches during the last three years.

	1924.	1925.	1926.
	Rs.	Rs.	Rs.
1. Cost of wood for splints and veneers.	20,000	3,37,800	4,32,000
2. Cost of paper	6,300	93,800	1,21,500
3. Cost of chemicals	8,400	1,12,500	1,49,500
4. Cost of other raw materials			
5. Factory labour	19,000	2,72,000	3,37,500
6. Power and fuel	16,800	2,44,000	2,70,000
7. Ordinary current repairs and maintenance of buildings, plant and machinery.			
8. General services, supervision and local office charges.			
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc.	4,200	65,700	94,500
10. Cost of packing cases			
TOTAL	74,700	11,25,800	14,04,000

Form II.—Statement showing works cost per gross of matches. Full size.

	1924.	1925.	1926.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of wood for splints and veneers.	0 9 6	0 9 0	0 8 0
2. Cost of paper for labels and wrapper.	0 3 0	0 2 6	0 2 3
3. Cost of chemicals	0 4 0	0 3 0	0 2 9
4. Cost of other raw materials			
5. Factory labour	0 9 0	0 7 3	0 6 3
6. Power and fuel	0 8 0	0 6 6	0 5 0
7. Ordinary current repairs and maintenance of buildings, plant and machinery.			
8. General services, supervision and local office charges.			
9. Miscellaneous, e.g., rent, Municipal taxes, insurance, etc.	0 2 0	0 1 9	0 1 9
10. Cost of packing cases			
TOTAL	2 3 6	1 14 0	1 10 0

The New Sunderban Match Factory Limited, Calcutta.

Letter, dated the 21st April 1927.

Replies to questionnaire, Letter, dated the 21st April 1927.

With reference to your letter No. 288, dated 8th April 1927, we beg to submit our replies to questionnaire as put in by our Factory Expert and Manager Mr. P. C. Roy.

Answers to the questionnaire.

INTRODUCTORY.

1. The Sunderban Match Factory Limited, was floated in 1923 but subsequently the Company went into voluntary liquidation in the year 1926 with a view to reconstruction of the Company under the name of the New Sunderban Match Factory Limited, and the Managing Agency was transferred to Messrs. Kar & Co. It is a public registered Company.

2. About $\frac{2}{10}$ th of the Capital invested are held by Indians. The total number of Directors are eight, of which one only is a European. There is no European employee in any capacity.

3. We undertake the whole process of manufacture.

4. This factory started its work from February 1925.

5. This factory is well equipped to manufacture splints and veneers for 1,000 gross and finished matches for 500 gross daily.

6. The dimension of the match box is 53 mm. x 37 mm. x 17 mm. which is generally known in the market as the standard size for three quarter boxes.

7. The average output of matches in the year 1925 was about 100 gross per diem. In the year 1926 the factory worked for five months and the average daily production was 150 gross. 150 x 365

8. The factory is situated at Khulna which is about 110 miles south-east from Calcutta. The position of the factory is almost an ideal in respect of the following points:—

- (a) It is close to the Sunderbans from which we get our supplies of wood.
- (b) The place is not very far from Coal District. The waste wood forms half of the fuel.
- (c) The place is connected by rail, steamer and boats with almost all the towns of East and West Bengal.
- (d) The kind of labour we want for our factory is abundant in the neighbouring places and the humidity of the locality is favourable for match manufacture.

The above considerations are the most important factors for selecting the site of a match factory in India. The advantage of a factory is appreciated in proportion to its distance from the port.

9. (a) The Indian manufactured matches, if properly made, are in no way inferior to the imported matches excepting in colour and high class finish.

(b) There is a prejudice against the Indian matches on account of the colour of the splints and finish besides the general prejudice against India-made articles which is diminishing gradually.

(c) The imported matches are sold in the market for one and half pice per box while the indigenous matches are sold at one pice per box. This difference in price I believe is sufficient to overcome the prejudice.

Wood.

10. I have never found it necessary to import wood for the manufacture of (a) Splints, (b) Veneers and (c) Packing cases. As we do not import

wood, I am unable to give any information regarding the f.o.b. price, etc., of the imported wood.

11. We use the following kinds of wood for the manufacture of:—

(a) *Splints*.—Excoecaria Agallocha (Gewan) principally also Trewia Nudiflora (Petuli) Anthocephalus Cadumbu (Kadam).

(b) *Veneers*.—Excoecaria Agallocha (Gewan) also Bombax malabaricum (Simul).

(c) *Packing cases*.—Excoecaria Agallocha (Gewan).

12. The Indian wood is as satisfactory as the imported wood for the manufacture of (a) Splints, (b) Veneers, and (c) packing cases, excepting the facts that the outturn from our wood per cubic foot is much less than from the imported wood and that the colour of the products is not so fair as that of the imported wood.

13. It is very difficult to give an accurate quantity of wood required. We do not get selected logs under the present system of supply and so provision for a heavy wastage becomes necessary. We give the figure according to our present rate of consumption.

(a) Our annual requirement of wood is 33,000 c.ft. against the present daily outturn of 200 gross.

(b) 165,000 c.ft. of wood would be necessary per year for the full capacity of our machines at 1,000 gross per day.

14. 50 c.ft. of wood are necessary for 100 gross of finished matches.

15. The size of packing case is 2' x 2' x 3'. The wood required for the same is 2½ c.ft. in the log form. One packing case contains 50 gross of matches.

16. We get our supply of wood from the Sunderbans which is only 35 miles off by river from the factory.

17. The private people fell the trees on their own account and sell them in lots to the factory. The wood is transported to the factory by the river on their own boats.

18. We do not pay any royalty direct to the Government. The people who fell the trees pay Rs. 6 only as royalty to Government for each 100 maunds of wood.

19. We pay for the wood delivered at the factory including all expenses at Re. 1 per piece of 2 c.ft. roughly.

20. We hold no concession.

21. We have found the supply of wood constant in respect of quality.

22. The supply of wood is also constant in respect of quantity.

23. We found no necessity to get supply from different areas.

24. We consider that our factory is assured of a sufficient supply of suitable wood for a long period. In fact the Government wanted to demolish these trees in the year 1901 as they were encroaching upon new lands. The Forest Department spent a lot of money over the scheme but it was at last abandoned as hopeless. But these trees are allowed to be felled down indiscriminately for fuel and other purposes. If there is some restriction with regard to the felling of the trees below certain girth the continual supply of timber for factories to produce 20,000 gross a day is assured for a long time to come. No steps have yet been taken for the plantation of suitable trees near the factory, but the scheme for the same is awaiting the declaration of the policy of the Government regarding the protection of this Industry.

25. We do not get any special concession regarding freights, etc., for wood. Our factory being located on a river bank at the close proximity of the Sunderbans, our wood is brought by country boats and the exorbitant railway freight for wood does not affect us.

Other raw materials.

Other raw materials required by us are as follow:—

26. (a) Papers:—

- (1) Blue pasting papers in reels.
- (2) Packeting papers.
- (3) Labels.

(b) Chemicals:—

Amorphous Phosphorus.
 Antimony Sulphide.
 Manganese Dioxide.
 Glass powder.
 Industrial earth.
 Chlorate of Potash.
 Bichromate of Potash.
 Sulphur.
 Zinc Oxide.
 Ferric Oxide.
 Chalk powder.
 Phosphate of Ammonia.
 Gum traganth.
 Gum Senegal.
 Gum Arabic.
 Glue.
 Dextrin.
 Arrowroot.
 Red lead.
 Paraffin Wax.

The total annual requirement at the present rate of daily output of 200 gross for paper is 18,000 lbs. and for chemical 30,000 lbs.

27. For 100 gross production we require 30 lbs. of paper and 50 lbs. of chemicals.

28. A. All the above named chemicals and papers are imported from abroad.

B. None manufactured in India.

C. None is manufactured by us.

(a) All the chemicals are manufactured in Germany and the papers are made in Sweden generally.

(b), (c), (d), (e) and (g) As we purchase them in the local market we are unable to give any detailed information in this connection as wanted.

(f) Amorphous Phosphorus, Chlorate of Potash, Bichromate of Potash, and Sulphur are transported to the factory at a charge of Rs. 1-8 per maund and the rest at a cost of Re. 1 per maund.

29. (a) Papers and all the chemicals excepting Sulphur, are likely to be manufactured in India as the raw materials are available in the country. In case of Phosphorus the Swedish Trust holds the patent of process of manufacture but that I do not consider a permanent impediment.

Labour.

30. As we purchase the timbers delivered at the factory I have no direct knowledge about the availability of labour for the extraction of wood, but I believe there is no difficulty in this respect.

31. It is not necessary to import any skilled labour from abroad.
32. We have no imported labour in our factory.
33. We generally employ people (Vadrilogue class) to work at the machines. The work being of a light nature suits them admirably well. They pick it up quickly. Especially as they are suited to no hard work we get them cheap. We have a sort of night school where we give them mechanical training.
34. We have got about 90 workmen; about 15 of them are boys under 15 years of age. No women are employed. The boys get 6 annas per diem, the coolies get 12 annas per diem and the machinemen (the literate boys over 15) get 14 annas per diem on an average.
35. The labour is drawn from the vicinity of the factory.
36. The literate boys improve with training. We do not keep any record of work in different departments.
37. We have given quarters to those who are willing to live in the factory compound. A library and a night school have been started for their general education.
38. Power used in the factory is derived from steam.
39. We do not use electric power.
40. Coal and waste wood are used for generating power. Waste wood is sufficiently available in the factory on account of the rejected wood and wastage incidental to the process of manufacture.
41. About 2½ seers of coal are required for one gross of matches.
42. The coal is purchased locally at Rs. 13-8 per ton, i.e., at 8 annas per maund delivered at the factory.
43. We also use waste wood for fuel. We do not purchase it separately as it comes out as wastage out of the process of manufacture. Waste wood alone is not sufficient to generate the power we require.

Market.

44. The total Indian demand for matches is about 15,000,000 gross for a year.
45. The demand for matches is daily on the increase. This is due to the increasing railway and other transport facilities to all parts of India and the gradual but steady spread of civilisation in the country.
46. The principal market for our matches is South Bengal, and our factory is also situated in South Bengal.
47. As we are not far away from the ports we have no advantage over the imported matches on this account.
48. (a) We have no definite information on this point.
- (b) We have reasons to believe that there is illicit importation of foreign matches into India but we have no direct information on the subject.

Competition.

49. Sweden and Japan are the two countries which not only compete with the Indian matches but compete between themselves.
50. With the existing duty the imported matches compete keenly with the matches made from indigenous wood but the imported matches cannot compete with matches made from imported wood.
51. (1) The price at which the imported matches entered the country in 1918-22 or 1922-26, is not accurately known to us.

The price which the matches were sold is as follows :—

1918	. . .	Not known to us.
1919	. . .	Do.
1920	. . .	Do.
1921	. . .	Rs. 2-12 per gross.
1922	. . .	Rs. 2-12 "
1923	. . .	Rs. 2-12 "
1924	. . .	Rs. 2-10 "
1925	. . .	Rs. 2-10 "
1926	. . .	Rs. 2-10 "

(2) Our matches were sold

1925	. . .	at Rs. 1-12 per gross (including Agents' Commission).
1926	. . .	at Rs. 1-10 " "
The present price	Rs. 1-8	" "

(3) The price of the Indian matches from imported wood was as follows :—

1924	. . .	Rs. 2.
1925	. . .	Rs. 1-14.
1926	. . .	Rs. 1-12.

52. The Commercial Intelligence Office is the only source from which the information wanted may be obtained.

53. The imported matches were sold just before the Rs. 1-8 duty was imposed, at the rate of Rs. 2-12 per gross but now even after paying the duty they are selling at Rs. 2-10. So we believe they are selling the matches at present at a nominal profit, whereas in pre-duty days, they had been profiteering heavily. In order to regain this lost advantage they have started factories in India to avoid the custom duty. These factories are the real enemies of Indian Manufacturers.

54. The Indian manufacturers are at a great disadvantage in all the points enumerated except (f) freights on finished goods.

55. We consider (a), (b), (c), (e), and (g) are temporary. Regarding (d) and (h) it depends on the policy of the Government. Regarding (i) the raising of capital, I consider this also a temporary point. As soon as the protective policy of the Government is fixed, the capital we believe will not be difficult to raise.

Equipment.

56. Our mill is just sufficient as an economic unit of production to ensure economy. The smallest unit of production on an economic basis is 500 gross.

57. About 20 per cent of the capital has been invested towards plant and machinery.

58. (a) We have got the following machines :—

3 Peeling machines	. . .	A Roller of Berlin.
2 Chopping machines	. . .	A Roller of Berlin.
1 Drying machine	. . .	Baden Engineering work (Germany).
1 Splint arranging machine	. . .	A Roller.
1 Cleaning machine	. . .	"
5 Frame-filling machines	. . .	"
5 Box-making machines	. . .	"
1 Box-filling machine	. . .	"
1 Painting machine	. . .	"

Steam Engine, Steam Pump, Shafts, Belts, Pipes, etc.

These machines were practically brought into use for the last two years.

(b) These machines were not purchased under any special arrangement.

59. (a) Our machineries are sufficiently up-to-date.

(b) All the process of the manufacture is done by machine.

60. (a) If the protection is granted to this Industry, we contemplate to instal one Automatic machine to replace the present system of frame filling and dipping.

(b) If the protection is granted we want to extend the plant by addition of machineries for double production.

61. Almost all the parts of machines can be made in India but the cost is high.

Capital Account.

62. The block value of the property as it stood at the end of the last year is as follows:—

	Rs.
(a), (b) and (c)	25,000
(d)	41,000
(e)	8,000

63. The above figures represent the value after depreciation. The total figure written off is Rs. 19,493-6-10.

64. The sums set aside, we consider, represent proper figure.

65. The present day cost for a similar factory with present day output would be as follows:—

	Rs.
(a)	30,000
(b)	60,000

The operating cost of a new factory would be smaller than ours.

66. The plant and machinery were purchased in the year 1923 to the extent of Rs. 25,000 locally and in the year 1924 to the extent of Rs. 35,493.

67.

	Rs.
(a) The authorised capital is	5,00,000
The issued capital is	3,00,000
(b) The subscribed capital is	85,500
(c) The paid up capital is	79,250

All the shares of the Company are ordinary; there is no preference or Deferred shares.

68. We have no preference shares.

69. We have no Deferred shares.

70. (a), (b) and (c) None.

71. No dividend.

72. We have no debenture loans.

73. No reserve fund, as heavy depreciation has been adopted for plant and machinery.

74. Up to 5 lakhs which is authorised.

75.

Works cost.

Form I.—Statement showing total expenditure on the production of matches during the last two years 1925-26.

	1925.			1926.		
	Rs.	A.	P.	Rs.	A.	P.
1. Cost of wood for splints and veneers	3,025	0	0	3,937	8	0
2. Cost of paper	2,268	12	0	3,093	12	0
3. Cost of chemicals	3,025	0	0	3,937	8	0
4. Cost of other raw materials	378	2	0	562	8	0
5. Factory labour	4,537	8	0	6,187	8	0
6. Power and fuel	756	4	0	1,125	0	0
7. Ordinary current repairs and maintenance of buildings, plant and machinery.	567	3	0	1,125	0	0
8. General services, supervision and local office charges	3,781	4	0	4,781	4	0
9. Miscellaneous, e.g., rent, Municipal taxes, Insurance, etc.	1,134	6	0	1,406	4	0
10. Cost of packing cases	756	4	0	1,125	0	0
TOTAL	20,229	11	0	27,281	12	0
Total production of matches for the year	12,100 gross.			18,000 gross.		

Form No. II.—Statement showing works cost per gross of matches.

	1925.			1926.		
	Rs.	A.	P.	Rs.	A.	P.
1. Cost of wood for splints and veneers	0	4	0	0	3	6
2. Cost of paper for labels and wrapper	0	3	0	0	2	9
3. Cost of chemicals	0	4	0	0	3	6
4. Cost of other raw materials	0	0	6	0	0	6
5. Factory labour	0	6	0	0	5	6
6. Power and fuel	0	1	0	0	1	0
7. Ordinary current repairs and maintenance of buildings, plants and machinery.	0	0	9	0	1	0
8. General services, supervision and local office charges	0	5	0	0	4	3
9. Miscellaneous, e.g., rent, Municipal taxes, Insurance, etc.	0	1	6	0	1	3
10. Cost of packing cases	0	1	0	0	1	0
TOTAL	1	10	9	1	8	3
NET TOTAL	1	10	9	1	8	3
Total production of matches for the year	12,100 gross.			18,000 gross.		

76. The works cost increased on account of the production being low on the heads (8) General services, etc., and (9) miscellaneous such as rent, etc. If full output had been obtained the figures would have been for (8) Re. 0-1-6 per gross and (9) Re. 0-0-6 per gross.

77. We have not yet adopted the cost accounting system, but are going to do so presently.

78. I cannot furnish any information regarding the works cost of matches in any competing country.

OVERHEAD CHARGES.

(i) Depreciation.

79. The rates of depreciation allowed by the Income-tax authorities is $6\frac{1}{2}$ per cent. on machinery and $2\frac{1}{2}$ per cent. for the buildings. This I believe is fair.

80. (a) For depreciation at Income-tax rates Rs. 4,416 are required annually, if the assets are valued at cost, or (b) Rs. 3,387-8-0, if the assets are taken at their value after deducting all depreciations.

(ii) Working Capital.

81. (i) Our Company requires Rs. 30,000 as working capital at the present output,

or (ii) Rs. 75,000 for the full capacity.

82. As the Company has not been fully reorganised yet, we cannot answer the question at present.

83. The Company has already borrowed Rs. 30,000. The rate of interest is 10 per cent.

84. The monthly work cost is Rs. 5,000 and the working capital is Rs. 30,000.

85. Average value of the stock of finished goods held by the Company is about Rs. 6,000. It takes about 30 days between production and payment.

86. No large stock of raw materials is required to be kept.

(iii) Agents' Commission.

87. The Company has got a head office. It is under the control of a firm of Managing Agents.

88. (i) The annual amount for Head Office expenses is Rs. 6,000.

(ii) The Agents' Commission is 10 per cent. of the net profits.

89. The Agents' Commission is determined according to the amount of net profits.

90. (i) One anna and seven pies per gross for Head Office expenses at the present output of 200 gross per day.

(ii) About eight pies per gross for Head Office expenses at full capacity of daily outturn of 500 gross.

Manufacturers' Profit:

91. 12 per cent. dividend would be fair for ordinary or deferred shares.

92. 9 per cent. would be an attractive rate of interest for debenture.

93. Everything depends on the policy of the Government with regard to the protection of this Industry. If the Government decide otherwise we do not issue any shares.

94, 95, 97, 98, 99. In answer to these questions I beg to attach herewith a copy of my representation to the Tariff Board submitted on the 31st December, 1926.*

* Printed separately.

96. This industry peculiarly suits the labour of the middle class. This industry if allowed to grow will solve to a great extent the problem of unemployment in the country.

This industry will help the growth of the other industries such as paper and chemical industries, the raw materials of which are abundant in the country.

There are plenty of forests in India, the timbers of which may be best utilised for this purpose.

India is full of waste lands. The plantation of suitable woods may be started on them to the best advantage of the country.

P. C. ROY,

Factory Expert and Manager.

Dated 20th April 1927.

The Karimbhoy Match Manufacturing Company, Calcutta.

We have the honour to submit the following answers to the Match Industry Questionnaire forwarded to us.

INTRODUCTORY.

1. Ours is an unregistered private company having been established in September 1925.

2. The whole capital invested in our firm is held by Indians. We have no directors. No foreigners are employed in our factory in any capacity whatsoever.

It is purely an Indian concern as regards capital, supervision, management and labour.

3. We undertake the whole process of manufacture of matches and match boxes complete.

4. In September 1925.

5. 1,500 gross per diem.

6. We manufacture full size match boxes containing 80 splints and half size boxes containing 65 to 70 splints.

7. The present output is 1,000 gross per day. ✓

8. It is situated at 31-35, Canal West Road, Calcutta.

(a), (b), (c) and (d) Yes.

Cheap and sufficient wood supply, cheap and sufficient labour and cheap means of transportation should be the important factor in selecting the site of a match factory in India.

9. (a) Indian matches are not inferior to imported Swedish matches in quality though its outward appearance is not so refined on account of wood used by the Indian Match Manufacturers. Even the Indian matches are not inferior in any way to the Japanese imported matches or to the matches manufactured by the Swedish Trust in India. It may be added that some of the Indian factories manufacture better quality matches than the Swedish Trust manufacturing in India.

(b) It may be said in general that there is a prejudice against Indian manufactured matches amongst the aristocracy and the European Community, not as regards quality but for the splints made of Siberian wood. It is fast disappearing.

(c) There should be no difference in price but the people pay 1½ pice per box of imported Swedish matches as against 1 pice per box of Indian made matches due to the fancy they have for the wood of which the imported Swedish splints are manufactured. This is also disappearing.

Raw Materials.

10. (a), (b) and (c) No.
We do not import. We use Indian Genwa wood.
11. (a), (b) and (c) Genwa.
12. (a), (b) and (c) Yes. But the transportation of the Indian wood is a problem with the Indian factory owners as it is cheaper and easier to transport wood from the vicinity of the North Pole to India than from 400 miles within India.
13. (a) 4,000 tons.
(b) 6,000 tons.
14. 50 cubic feet of Genwa wood for 100 gross of boxes of finished matches.
15. 50 gross case for full size matches $37\frac{1}{2}'' \times 25'' \times 26''$, 100 gross case for half size matches $35'' \times 29'' \times 29''$. One case takes about 4 cubic feet of Genwa wood.
16. We buy our supply of wood in the local market close by.
17. The villagers fell the wood in the Sundarbans and transport the same by boat to the Calcutta market for sale which is their means of livelihood. It may be added that the Genwa wood used to be in demand for manufacture of packing cases but with the birth and development of the match industry in Bengal the demand increased and found employment to thousands and is feeding so many.
18. We understand that they pay 1 anna to 2 annas per maund as royalty to the Government.
19. As we buy our supply of wood in the local market we are not in a position to say anything from personal experience on these points but we are told the charges do not exceed 5 annas per c.ft. from the forest to the local market.
20. Nil.
21. We experienced no difficulty in having supply of wood constant in quality and have not noticed any deterioration in quality as well.
22. As yet we have found the supply of wood constant in respect of quantity and would like to add that if the Government undertakes the "Couping" System for match wood there will be no difficulty for generations to come and we would not be required to draw our supplies of wood from inaccessible places.
- (a), (b), (c) and (d) Nil.
23. Nil.
24. Yes.
We are prepared to plant match wood trees if facilities are afforded to us by the Government in the lease of lands on the navigable riversides. On enquiry from Dehra Dun Forests Research Institution we learnt that *Albizia stipulata* wood is known to grow 7 feet in girth within 7 years. This shows that there is ample room for extension of the supply of match wood and thus to reduce the cost of raw material and to cheapen the price of matches.
25. None whatsoever.

Other Raw Materials.

26. Raw materials besides wood required for manufacture of matches are Potash Chlorate, Bichromate of Potash, Ferric Oxide, Manganese Dioxide, Red Manganese, Red Lead, Sulphur, Glass Powder, Amber, Lampblack, Antimony, Red Phosphorus, Dextrine, Glue, Paraffin, Gelatine, Gum, Oxide of Zinc, Paper for wrapping and packing, Zinc sheets, etc.
27. The cost per gross of the chemicals is about $2\frac{1}{2}$ annas.
28. (a) Match chemicals are mostly now imported but these chemicals except Potash Chlorate can be manufactured in India.
(b) Paper and the following raw materials, Glass Powder, Rosin, Manganese Dioxide, Antimony, Sulphur, Red Lead, Flour, etc.
(c) None.
29. Refer to answer 28.

30. No.
 31. To no extent.
 32. Nil.
 33. Nil. Every facility is given to Indian workmen to acquire training in skilled labour.
 34. About 500; 100 being women, 50 to 60 children, rest males.
 Male 12 annas to Rs. 2-8 per diem.
 Female 8 annas to Re. 1-4 per diem.
 Children 8 annas to Re. 1 per diem.
 35. From the vicinity of the factory.
 36. Yes, to a great extent. Yes.
 37. The labour being drawn from the vicinity of the factory, no housing facilities are necessary.

Power.

38. Electricity.
 39. Calcutta Electric Supply Corporation, Limited; 2 annas are the cost per unit which is in our opinion rather high. The monopolist Electric Supply during the War time was permitted to charge for increase in price of coal in addition to the above unit charges. Most curiously the War is come and gone and the prices of coal have not only reached their pre-war level but are even less than that but the excess charge is still there to fill the pockets of the monopolist Corporation shareholders. Pity it is true and true it is pity in these days of tall talk of Industrial development in India on all sides.

We have made no enquiry as under the present circumstances it would not avail us in any way.

40. Nil.
 41. Nil.
 3 pice to 4 pice per gross; roughly half unit of electric current.
 42. Nil.
 43. Nil.

Market.

44. Refer to Government Statistics.
 45. Yes, because of cheapness in conformity with quality and also the material progress of the country.
 46. Bengal, Bihar and Orissa, United Provinces, Central Provinces and Assam.
 47. Nil.
 48. (a) Refer to Government Statistics.
 (b) Yes, probably in Kathiawar ports.

Competition.

49. Sweden is the only competitor to be reckoned with at present. Japan, once the keenest and the most successful too, has lost completely the Indian market *pari passu* with the growth of Indian Match Industry.
 50. Yes, with both.
 51. (1) We have no information.
 (2) In 1925 and some part of 1926 we used to get Rs. 2 per gross of full size and Re. 1-11 per gross of half size matches.
 (3) _____
 52. From Customs Manifest.
 53. (a) Yes, unremunerative in case of Japan.
 (b) _____
 (c) We do not know.

54. (a) Yes.

(b) Yes, because the Industry is old.

(c) Yes.

(d) to (i) Yes.

55. All are temporary but we cannot forecast as we cannot control item Nos. (d), (e), (f) and (h).

Equipment.

56. Yes, but with greater addition of plant and consequent greater output at a lower cost it would be a still more economic unit; all factories admit of expansion and expansion in the right direction means greater economic unit of production.

500 gross per diem.

57. 50 per cent.

58. (a) See schedule attached herewith.

(b) No special arrangements.

59. (a) Yes.

(b) ———

60. (a) No.

(b) Certainly, yes. Frame-filling, Frame-emptying, Stick-levelling, Box-pasting machines, etc.

61. All the match manufacturing machines except upper part of frame-filling machines, box-filling machines and packeting machines.

(1)

Capital Account.

62 to 66. ———

67 to 74. Do not arise.

Works Cost.

75. See Schedule.

76. Our factory being in its infancy, the question does not arise.

77. No. Does not arise.

78. No.

Depreciation.

79, 80. We do not know.

Working Capital.

81. (1) Working capital about 1 lakh and a half.

(2) About 2 lakhs and a half.

82, 83. Do not arise.

84. About 20 per cent. of the working capital.

85. About 20 per cent. of the working capital.

About 2 months on an average.

86. Not coal, but raw materials of about 20 per cent. of the working capital.

Agents' Commission and Head Office expenses.

87. Nil.

88. Seilling Agents' commission varies from 1 to 2 annas per gross and the Head Office expenses 1 anna per gross.

89. We pay per gross of sale.

90. Please refer to 88 and 89.

Manufacturers' profit.

91 to 93. Do not arise.

Claim for protection.

94. (a) Yes.

(b) Certainly. We do claim without the help of protection the Industry cannot at all develop as is desirable in the interests of the country.

(c) Yes, with 10 years' protection the Industry would not only be able to face the World's competition, but find its own market in the World abroad after meeting the Home demand. Both labour and wood can be had in abundance at a competitive rate in India and the Indian market is one-fifth of the World's Match Market. Moreover, with the material development of the country, more matches are sure to be consumed. The abolition of protection would place the Industry at a disadvantage and crush the Industry as it is even with protection; it has to face unfair competition from foreign capitalist caucus. Protection has given an impetus to the Industry and the Industry has developed beyond expectation under its wings inasmuch as it has ousted the Japanese competitors from the Home market and now supplies more than half the consumption of the Home demand. Its history shows how wonderfully this Industry has grown up within such a short period as 4 years or so. With this space of development the Industry will make Home market independent of all foreign imported matches and will meet the needs of the country within four or five years more and thereby increase the wealth of the country by crores of rupees every year and find employment to thousands. No nascent Industry of any country has ever developed without protection.

95. (a) Certainly.

(b) Most certainly—not only will meet the Home demand but would find markets abroad as said before.

96. Yes. With years of experience the comparatively cheap Indian labour would be really cheaper and with unlimited supply of wood, the cost of production would be minimised to such an extent by bringing in its trail the consequent birth of bigger factories and expansion of existing ones as to compete favourably with the foreign manufacturers.

97. (a) and (b) The existing Customs duty of Re. 1-8 per gross gives protection to the Indian Match Industry to the extent of Re. 1-2 per gross.

98. We advocate the declaration of the present Import duty of Re. 1-8 per gross as the protective duty.

(2) We want protection against invasion of the industry by foreign capitalists who backed by their unlimited capital of crores of rupees are come to nip the indigenous industry in the bud, viewing the development and growth of Indian Match Industry as a menace to their monopoly of the World's Match Market and are bent with determined intention to crush the same and to keep the Match Market as their preserve.

(3) Transportation difficulty should be removed to enable the manufacturers to utilise the best match wood found in the Himalayas, Assam and in other parts of India by allowing concession rates as to freight through the intervention of the Railway Board.

(4) Abolition or even reduction of Import duty on match machineries, match chemicals and papers would give the Indian manufacturers the fullest possible benefit of the existing Import duty on imported foreign matches under the present condition of India.

99. Yes. Excise duty should be levied on all Trusts and Foreign Corporations as is done by Japan lately whose advent as a rival is calculated to stifle the Industry in its infancy.

Schedule showing the cost.

	Rs. A. P.
Wood for splints and veneers	0 6 0
Paper	0 2 0
Chemical	0 2 6
Raw materials	0 2 0
Current repairs and maintenance, etc.	0 1 0
General supervision and local office charges	0 2 0
Rent, Municipal taxes, Insurance, etc.	0 1 0
Cost of packing cases	0 1 6
Labour expenses	0 6 3
TOTAL	1 8 3

Messrs. Dharamsey and Company, Calcutta.*Letter dated the 26th September 1927.*

We thank you for your letter No. 752, dated the 12th instant, and we are sending herewith six copies of our replies to the Boards questionnaire issued to match manufacturers, receipt of which please acknowledge.

Replies from Dharamsey & Co., to the Questionnaire of The Indian Tariff Board for Match Industry.

1. Messrs. Dharamsey & Co., are a Private Firm. They are not a Limited Liability Company. There is a Partnership Deed amongst the Partners.
2. All the Capital invested is held by Indians and all the Partners of the firm are Indians. No European is employed in any capacity by Messrs. Dharamsey & Co.
3. We undertake the manufacture of the whole process of splints, veneers, Matches and Match boxes.
4. We commenced work with the machines in the month of November 1926.
5. Our present capacity is 450 gross per day of 9 working hours. Four further machines have been shipped on our account which have just arrived.
6. We manufacture full size match boxes the size of which is $2\frac{3}{16}'' \times 1\frac{7}{16}'' \times \frac{1}{16}''$ and half size match boxes the size of which is $1\frac{1}{2}'' \times 1\frac{1}{8}'' \times \frac{1}{16}''$. The full size match box contains on an average 78—82 matches and the half size match box contains on an average 68—72 matches.
7. Our present output is 450 gross per day, but within a fortnight our output will be 650 gross per day as new machines have arrived.
8. Our factory is situated within the premises of the American-Eastern Tobacco Corporation, Ltd., at 19, Dum Dum Road and 1/1, Umakanto Sen Lane, both the properties being adjoined together.
8. (a) We are very near to the Calcutta canal from which all the Calcutta Match factories take the supply of wood. Though we are not actually facing the canal, yet we have the advantage.
- (b) We have High Tension Power supplied by The Calcutta Electric Supply Corporation, Ltd., and we draw our power from the Power Station of American-Eastern Tobacco Corporation, Ltd., whose tenants we are.
- (c) Calcutta is an important market for matches and our factory being in Calcutta, we consider ourselves to be in the vicinity of a very important market in India.
- (d) We have abundant labour around our factory which is also another consideration for the good situation of our factory.

9. (a) The Indian made matches are not considered to be inferior in respect of its either of its burning quality or of any fault in its chemicals. The Indian matches made of Indian wood fall short only in the whiteness of its splints. The fibre and the strength of the Indian wood is considerably less than that of the imported wood.

(b) There is no prejudice against the Indian made matches in any respect whatsoever. The aristocracy wants better splints, such as those from imported Aspen wood.

(c) The difference in price between Indian made matches of Indian wood and the imported matches ought to be at least Rs. 2 per gross.

10. We have up till now not imported any wood for the manufacture of match boxes either for splints, veneers or for packing cases. We only ordered out a trial shipment of two tons of Aspen wood from Japan the cost of which is as stated below:—

	Rs.	A.	P.
Per ton c.i.f., Calcutta	96	8	0
Freight and Insurance . . . . .	...	
Landing Charges and Rent about	4	8	0
Transport Charges	2	8	0
Duty, 15 per cent.	14	7	6

11. We use only Indian wood for the manufacture of splints and veneers both of which we make from Gewa and as for packing cases we get them made from the Packing Case Department of the Tobacco Company, whose Managing Agents we are, who make these packing cases from Motor car cases the supply of which they get from the Motor car importers with whom they have contracts. They have a complete plant for the manufacture of such cases the cost of which comes practically the same as those made from Indian wood.

12. The Indian wood is entirely satisfactory and could be easily replaced for imported wood for veneers but for splints the strength of the fibre of Indian wood is much less, but as the Indian made matches are being sold owing to the indirect protection of the heavy duty on imported matches which costs more, we have up till now seen no prejudice from the public to use matches made of Indian wood, but we consider that it would be much preferable if the Government of India were to experiment and grow wood which would be suitable for splints. We hear that some wood from Andaman Coast is much better in strength and colour than Gaon, but the supply of which is very scarce and if we were to get supplies of this wood regularly we think that it would help the manufacturers.

13. (a) and (b) As we are manufacturing to the full strength and capacity of our plant and on this basis, our consumption of wood per year would be 30,000 logs (and more as our output increases with the arrival of new machines).

14. We require for full size 100 gross finished matches 32 logs and half size 100 gross finished matches 21½ logs.

15. Our standard size of packing case for full size matches to hold 50 gross matches is 36" x 23½" x 24½". To hold 100 gross half size matches it is 39½" x 27½" x 23½" and 27" x 20½" x 23½" to hold 50 gross half size matches. As we are not making packing cases, we have no idea of wood it requires for making one packing case.

16. The supply of wood comes from Sunderband. The wood is brought from the Sunderband to Calcutta by the canal on the Canal Road from where we draw our supplies. The distance from Canal Road to our Factory is about a mile.

17. We ourselves do not import wood from the forests of Calcutta but we get our supplies from the villagers who obtain passes from the Government to bring wood from the forests.

18. We have no idea.

19. As we buy our wood locally we cannot give this information.
20. As we are not bringing the wood ourselves, we have not applied for any license for the extraction of wood.
21. At present the wood supply is ample but during the hot months the supply is scarce as also the quality of wood inferior as it is dried up and therefore considerable wastage occurs and consequently the cost of production increases. Owing to heat the wood is dried up and the prices are exorbitant.
22. We hear from the boatmen who bring wood from the forests that at present the Government has closed up more areas of forests and therefore the supply will be less now and naturally the prices will rise.
22. (a), (b), (c) There has not been any considerable increase in Match factories which would bring the price of wood high, but it is quite apparent that the gradual diminution of the areas of supplies from which the wood is brought is affecting the manufacturers seriously.
23. We have not brought any supplies from any new areas, but we understand that some factories have done so lately, but they say that the supply is so scarce that instead of helping, the work has suffered owing to inconsistent quality.
24. We are absolutely in the dark if we could get sufficient supplies of woods for a reasonably long period or not. It is a matter for the Government. The Government could only ask the Indian factories to take a permanent interest with the fundamental object of a permanent Match Industry in India after they give protection to the Industry, and offer facilities to grow wood.

25. We receive no special concession in the matter of freight for either wood or anything else. If better facilities are granted, naturally it would help considerably this industry which is in its infant stage.

26. Other raw materials required besides wood are Potash Chlorate, Bichromate of Potash, Ferric Oxide, Manganese Dioxide, Red Manganese, Red Lead, Sulphur, Glass powder, Amber, Lamp Black, Antimony, Red-Phosphorus, Dextrine, Glue, Paraffin, Gelatine, Gum, Oxide of Zinc, paper for wrapper, labels, Zinc Sheets.

27. Chemicals required for 100 gross Matches—

	lbs.
Potash Chloride	25
Sulphur	2
Manganese	5
Lamp Black	1
Glass Powder	5
Rosin	1
Potash Bichromate	1
Ferri Oxide	3
Glue	5
Red Phosphorus	1½
Red Lead	½
Antimony	1½
Paraffin	8

28. Imported from Japan—

	Rs. A.	
Glass Powder, per cwt.	6 0	} Including duty, landing and clearing charges.
Black Manganese, per cwt.	13 8	
Antimony Sulphide, per cwt.	35 0	
(Duty on the above is 15 per cent., and duty and landing charges work out to 2 per cent.)		

	Yen.	Rs. A. P.
5 cwts. glue, per cwt.	33	} 239 12 0
Freight and Shipping, per cwt.	20-19	
Duty, Clearing and Rent (Exchange 129½)		44 8 0
		<hr/> 284 4 0

This has been imported by us only recently from Japan and works out to Rs. 65-13-7 per cwt.

All other raw materials we purchase locally, but many of them are imported the prices of which are controlled by local firms.

Paraffin, we purchase locally from Messrs. Shaw, Wallace & Co., and the price of which until recently As. 3-9 per lb., but during the last month it has been gradually reduced to As. 3 per lb. The market of this is very fluctuating.

Potash Chloride, is imported from Germany and Sweden the market of which is controlled by the Match Manufacturing Supply Co., Ltd., of the Swedish Match Co., and the last contract we made with them is at Rs. 22 per cwt. ex-godown at Calcutta.

Sulphur, we purchase this from Messrs. N. C. Daw & Co., of Calcutta at Rs. 8-8 per cwt. ex-Godown Calcutta.

Lamp Black, Rosin, Potash Bichromate, Ferri Oxide, Red Lead, we purchase these locally from Messrs. Laxmidas Devidass & Co., Calcutta, at the rate given below ex-godown Calcutta, but we hope to import these very soon partly from Europe and partly from U. S. A.

	Rs. A. P.
Lamp Black, per lb.	0 5 6
Rosin, per md.	0 14 0
Potash Bichromate, per cwt.	30 0 0
Ferri Oxide, per cwt.	11 8 0
Red Lead, per cwt.	33 0 0

Red Phosphorus is being imported by the Match Manufacturing Supply Co., Ltd., the prices of which used to be very high, but recently it has been reduced and purchased by us during last week at Rs. 135 per case of 110 lbs. We recently approached a German Chemical Company who manufacture this article who replied back to us that at present they were unable to supply Red Phosphorus, which we think is due to the strong control which the Swedish Match Manufacturing Co. has upon the Chemical Manufacturers of the Continent.

29. If attempts are made with Government help, all the chemicals could be possibly manufactured in India.

30. We understand that there is sufficient labour for bringing wood from the wood areas.

31 and 32. We do not consider nor do we think of importing skilled labour. We are of opinion and we have found same in practice that the Indian labour is as good, if not better than imported labour. We do not employ an imported labour.

33. The question does not practically affect our factory. We have been always giving all facilities to Indian workmen to get training in all the processes and we ourselves are training them.

34. The total number of workmen employed by us about at present, Men—100, Women—15 and Children—35 and the average rates are Rs. 1-3, As. 12 and As. 12 respectively.

35. All our Indian labour is drawn from the vicinity of our factory.

36. The Indian labourer undoubtedly improves by proper training and gradually gives the full output of the machines.

37. We have not made any housing arrangements for our labour though we have arranged with the Tobacco Company where they have a certified Doctor who attends for 2 hours daily and all modern medicines are kept in good quantities and the workmen and their families are treated free of charge. We have also arranged with the shops in the vicinity of our factory for our labour to get cheap foodstuffs, which are visited by our Doctor.

38 and 39. We use only Electrical power. We draw our main power from the plant of American-Eastern Tobacco Corporation, Ltd., who take High Tension Power from the Calcutta Electric Supply Corporation, Ltd. They charge 6 pies per unit and Rs. 6-8 per Kilowatt load. There is an agreement to consume 75 per cent. of 51 Kilowatts per month. Our share per month comes to about Rs. 125.

40. We do not use steam power, though very little steam is used for our Hot Rooms. The boiler is being worked half by Coal and half by the wastage of the wood of our factory.

41. The cost of flower per gross to us is about 2½ pies. As we draw our supply from the Tobacco Company, we cannot give the consumption of units per gross.

42. See No. 38 and 39.

43. We cannot use only wood for our boiler for steam purposes as the Indian wood gives considerably less amount of steam and so to make this up we have to use coal as stated in No. 40. Practically all our wastage of wood is consumed by our boiler.

44. The total demand in India as estimated by the Indian Chamber of Commerce is somewhere about 20 million gross matches per year.

45. Yes, we think the demand should increase in the near future. As the people get educated they will be giving up the old method of ignition and matches would be in greater demand.

46. Our chief markets are in Bengal, Bihar, Assam and a little in the Madras Presidency.

47. We do not think that there is any factory which could compete with any market in India owing to the distance from the port, as the chief factories which are situated in ports themselves have to bear the same cost of freight on the Indian made matches, as the foreign made matches, therefore no saving is made, but if preferential rate is given, it would help the match industry much.

48. The imported matches are somewhere about 50 per cent. and 50 per cent. of India made matches are sold at present.

(b) We do not suppose that there is any illicit importation of matches into India on any big scale, but there was a rumour of such importation on the Akyab coast.

49. Sweden and a little from Japan.

50. The imported matches compete with both.

51. (1) We have no information.

(2) We realised in 1926, Rs. 2 per gross for full size and Rs. 1-13-6 for half-size f.o.r., Calcutta.

(3) We have no information.

52. We think the information could be had from Customs House.

53. (a) We have reason to believe that the price at which matches are imported from Japan are very unremunerative.

Regarding (b) and (c) we are unable to say anything definite.

54. (a) The cost of plant and machinery to the Indian manufacturer must be naturally higher. All the machines are practically to be imported though few of the machines are now being made in India, which are as good as the imported, but for the main machines we have still to depend on importation. The prices of some of the machines have been recently increased by the Swedish Trust.

(b) Yes, a little.

(c) The cost of efficiency of ordinary labour in the beginning is a little high.

(d) We have to collect practically all the raw materials from outmarkets.

(e) Yes.

(f) Freights on finished products are, we consider, very high.

(g) Yes, but for wood it entirely depends on the Government and the facilities they grant.

(h) Customs duties on imported materials should be decreased.

(i) As for capital, the Indian public would heartily support the Indian Match Industry provided the protection is granted to the Industry. It would be risking their whole capital if they were to find that the protection is not granted and the duty decreased on the imported matches. It would be very daring on the part of any manufacturer in such a state of financial market and uncertainty to go out and ask the public to subscribe for an industry which has no foundation.

55. (a), (b), (c), (g), and (i) Are temporary disadvantages which would be overcome by the grant of protection.

(f) and (h) Could be overcome if the Government of India took to heart to protect the match industry and if they were to reduce the duty and Railway freights.

(d) and (e). We cannot control this but if the Government of India were to encourage the manufacture of chemicals in India, part of the disadvantage of raw materials would be overcome.

56. Yes. But greater the outturn, cheaper the cost of production will be, and the expansion in the right direction is necessary. We think that a factory must produce 500 gross to be on an economic unit.

57. 45 per cent., as on 31st August 1927.

58. (a) See Schedule.

(b) There is no special arrangement.

59. (a) Yes.

(b) Practically everything is done by machines now-a-days.

60. (a) No.

(b) Yes, our machines are arriving at convenient intervals, as well as we are erecting several ourselves. New machines, we contemplate importing are Frame Filling, Box Making Machine, Label Pasting Machine, Packeting Machine, etc., after the report of the Tariff Board is published. Machines we can erect ourselves are Splint Chopping Machine, Veneer Chopping Machine, Peeling Machine, Levelling Machine, Selecting Machine and Emptying Machine.

61. See No. 60.

62. (a), (b) and (c) We have no leases or concessions nor have we any land or building of our own. (d). Rs. 17,691-6-0. (e). Rs. 21,164-14-8 as on 31st August 1927.

63. In (d) we have allowed 10 per cent. depreciation and the amount shewn is after allowing depreciation.

64. Our own idea is that Match machines are so very delicate that the total value of the Machinery account should be written off at least in 5 years if possible. We think the Income-tax Officer would object if such heavy depreciations are allowed.

65. Our factory being new the question does not affect us.

66. We had no factory during the period mentioned.

67. The question does not affect us.

68 to 74. These questions do not affect us.

75. As we worked only about a month and a half in 1926, we have not filled in the Schedule, but if the Board desires, we can make out monthly Schedules for this year and submit.

76. Our factory being new the question does not affect us.

77. Yes, but our year has not been complete so it would not help the Board, as also new machines arrived regularly therefore extra labour was employed as also production was affected. If the Board desires, we can show the cost of few months which is available.

78. No.

79. We understand that the rate of depreciation allowed by the Income-tax authorities is 5 per cent. on buildings and machineries. We do not consider that this rate is suitable in calculating the cost of production of matches. As stated previously we think that the machineries should be written off within 5 years and the buildings also a little later than is allowed by the Income-tax authorities.

80. At 10 per cent. depreciation on machineries per year, we would require Rs. 1,000 for depreciation according to our present investment, and at a 5 per cent. depreciation on other assets, we would require Rs. 1,000. The Income-tax authorities allow only 5 per cent. on Machineries and nothing on other assets.

81. We are working at full capacity and we require about half a lakh of Rupees at the present rate of output, but the capital would have been much higher if we had not a Banian who pays cash immediately the goods are delivered to the parties.

82 and 83. These questions do not arise.

84. 27 per cent.

85. Luckily at present we have no finished stock as our days output are sold previously. But we think that 10 per cent. of the working capital will be required for finished goods.

About 2 months elapse between production and payment.

86. We hold stocks of raw materials to the extent of 20 per cent. of the working Capital.

87. We have an office at the above address.

88. (a) As Messrs. Dharamsey & Co. do many other businesses, only a part of their establishment could be taken into the account of matches and as the year is incomplete we are unable to give the amount.

(b) Our Selling Agents' commission comes to about one anna per gross.

89. We pay our Agents certain percentage on the nett amount realized.

90. Please refer to Nos. 88 (a) and (b.)

91 and 93. These questions do not arise.

94. (a) Yes.

(b) We claim that without protection the Industry is not likely to develop at all and further whatever of the Industry that exists at present will be wiped out and the Indian public in general will never again have faith in this industry. This Industry suffered loss previously and if the Industry is again left aloof then the same fate awaits her now.

(c) With about 10 years protection the industry will be able to face world competition in the home market.

95. (a) Yes.

(b) In a short period it is quite probable that the industry will supply all the requirements of India and very probably supply outside markets.

96. There is ample labour in India as well as ample wood which could be developed by this industry as also the demand in India of Matches amounts to practically one-fifth of the world's demand proves that the industry is suitable for the economic conditions of the country.

97. The protection which the industry receives indirectly owing to the existing Customs Duties including the conditions of (b) works to practically somewhere about Re. 1 to Re. 1.2 per gross on matches imported from Sweden and As, 10 to As, 12 per gross matches imported from Japan,

98. Japan competition is not so very great as in India 50 per cent. of the Matches imported which are practically all from Sweden and therefore we ask for Rs. 2 per gross protection on all imported matches, our reason being as below:—

If the duty is put up at Rs. 2 per gross, the imported matches could not be sold at Rs. 3-4 per gross, which means that the retail price will have to be raised from 1½ pice to 2 pice per box. This would give more protection than at present, but would at the same time enable and afford the Indian manufacturer to manufacture matches of the quality and standard of the matches imported from Sweden. The question of Aspen wood would then come up and with the facilities and help of the Government, the manufacturers will be tempted to go in for experimenting and growing suitable wood against Aspen wood. Thereby eventually the balance of the 50 per cent. importations would cease and eventually the whole of India would be supplied with matches made in the country.

99. Besides the protection of Rs. 2 per gross the Indian match manufacturers must be protected against the foreign Syndicate which has opened out several factories in India lately. We endorse the views of the Indian Chamber of Commerce who expressed in their letter to the Board of the 17th May 1927, and draw the attention of the Board to paragraph 12 in that letter and have to say that if this industry is not protected against this alien Syndicate, the match industry in a few years will pass out to their hands and the Indian public will be entirely at the mercy of this foreign Trust. Already it is being tried to injure the sale and reputation of the Indian manufacturers, by rumours in the market of a reduction in the import duty on Matches. Several dealers were informed before August not to purchase India made matches as the Duty would be reduced in the month of August last. This had a very bad effect on the market and such inferior methods are being adopted wherever possible. We therefore request the Board when submitting their report, they should prevail on the Government the necessity of publishing the report earlier, to stop repetition of such mischief.

We believe, as suggested by the Indian Chamber of Commerce an excise duty on factories managed and controlled by those who are not residents of India is as essential as the grant of protective duty on Imported Matches.

We have also to bring to the notice of the Board that the Swedish Trust besides having opened out factories in India are also trying to control the markets of chemicals and other raw materials and therefore granting of facilities for the manufacture of these articles is also essential.

Schedule of Machineries as on 31st August 1927.

- 3 Frame Filling Machines of Hirao Iron Works, Japan.
- 4 Emptying Machines of Bhowani Engineering and Trading Co., Calcutta.
- 1 Feeling Machine of Bhowani Engineering and Trading Co., Calcutta.
- 2 Feeling Machines of Bengal Small Industries, Calcutta.
- 1 Levelling Machine of Bhowani Engineering and Trading Co., Calcutta.
- 1 Levelling Machine, Home made.
- 2 Selecting Machines of Bhowani Engineering and Trading Co., Calcutta.
- 1 Selecting Machine of Hirao Iron Works, Japan.
- 3 Chemical Grinding Machines of Hirao Iron Works, Japan.
- 1 Label Pasting Machine of Hirao Iron Works, Japan.
- 2 Box Making Machines by Boreman, Germany.
- 1 Paraffin Apparatus by Bhowani Engineering and Trading Co., Calcutta.
- 1 Paraffin Apparatus, Home made.
- 1 Splint Chopping Machine by Bhowani Engineering and Trading Co., Calcutta.

- 1 Veneer Chopper Machine by Bhowani Engineering and Trading Co., Calcutta.
 1 Dipping Machine by Bhowani Engineering and Trading Co., Calcutta.
 1 Dipping Machine, Home made.
 About 4,500 Machine Frames from Japan.
 200 carts and several trays, Home made.
 1 Cross Cut Saw Machine, Home made.

FORM I.—Statement showing total expenditure on the Production of Matches during January to September 1927.

	Rs.	A.	P.
1. Cost of wood for splints and veneers	12,377	6	0
2. Cost of paper	3,450	11	3
3. Cost of chemicals	7,690	11	10
4. Cost of other raw materials	7,567	8	9
5. Factory labour	25,807	5	9
6. Power and Fuel	910	0	0
7. Ordinary current repairs and maintenance of buildings, plant and machinery	2,884	8	0
8. General services, supervision and Local Office charges	2,250	0	0
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc.	1,420	0	0
10. Cost of packing cases	5,186	0	0
TOTAL	69,544	3	7

Total production of Matches for the above period, 50,347 gross.

FORM II.—Statement showing works cost per gross of matches.

	As.
1. Cost of wood for splints and veneers	3-97
2. Cost of paper for boxes and wrapper	1-09
3. Cost of chemicals	2-44
4. Cost of other raw materials	2-40
5. Factory labour	8-20
6. Power and Fuel	0-28
7. Ordinary current repairs and maintenance of buildings, plant and machinery	0-91
8. General services, supervision and local Office charges	0-71
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc.	0-45
10. Cost of packing cases	1-64
TOTAL	22-09
Credit of materials recovered (if any)	<i>Nil.</i>

Government Demonstration Match Factory, Bihar and Orissa.

Letter dated the 12th May 1927.

I have the honour to send herewith the replies to the Tariff Board's questionnaire in seven copies. I regret the delay in sending same which was unavoidable on our part.

Introductory.

1. The firm represented was established on 28th July 1925. It is the Demonstration Match Factory of the Government of Bihar and Orissa.

2. The capital invested is entirely Bihar and Orissa Government's. There is no European employed in the Factory.

3. The whole process of manufacture is going on in the factory.

4. On the 8th January 1926.

5. About 100 gross per day.

6. The dimension of the match boxes manufactured is $2\frac{1}{2}'' \times \frac{1}{2}'' \times \frac{3}{8}''$ ($\frac{3}{8}''$ size).

Each box contains 63 matches average.

7. Actual output is 2,000 gross per month average. ✓

8. Gulzarbagh, Patna.

(a) Not in vicinity.

(b) Yes.

(c) Yes.

(d) Yes.

In selecting the site of a factory the most important factors to be considered are :—

1. Easy and sufficient supply of suitable wood in green state and at low cost of transport.

2. Easy Railway or Steamer communication with some port city and market.

3. Easy water supply.

4. Availability of labour.

9. (a) Yes, in neatness of splints and boxes the Indian manufactured matches with local wood falls far short of the standard of imported matches.

(b) Apart from the question of quality, generally the markets are often prejudiced at the price of Indian matches. General tendency is to get the cheapest matches.

(c) A difference of about Rs. 1-2 per gross might represent a fair measurement of the difference and a little further difference by one anna more would probably be sufficient to overcome the prejudice against Indian matches, because the consumers pay 45 pies for a box of imported matches against 3 pies for local article.

Raw Materials.

10. No.

11. Wood used in the manufacture of—

(a) Splints is Trowia Nudiflora and Bombax.

(b) Veneers is Odina Wodier and Bombax.

(c) Packing case not manufactured in the Factory.

12. The Indian wood is not as satisfactory as imported wood. They are inferior to imported wood in respect of—

- (1) Smooth and fineness of grains,
- (2) Strength,
- (3) Colour

and (4) General growth. They are mostly uncared for and wild with knots, bends, cracks and hollows and scarcely grown or reared to suit particularly for manufacture of matches incurring high percentage of wastage. This will improve if the Forest Department will begin nursing growth of these wood.

13. Annual requirement of wood is 12,000 cubic feet to 15,000 cubic feet.

14. About 40 cubic feet of wood is required for manufacturing 100 gross.

15. The dimension of the packing case used is 34½" x 25" x 22" and contains 50 gross. 2 cubic feet of planks are required to make one case.

16. The factory draws its main supply of wood from Nepal Terai forest, Bagaha—which is about 150 miles away from the factory. A map is herewith sent showing the site of the factory and the forest area.

17. The Bettiah State supplies the wood. From the forests the wood is carted to the river side and then made into raft and floated down. In case of wood which do not float they are transported by slinging on either side of boats.

18. Supplier is the owner and price includes everything—the rate includes a Royalty of annas

19. We have no details under the heads referred to. The cost per 50 cubic feet at the factory is Rs. 35 (last year's average).

20. We buy wood and the questions do not arise.

21. No, the supply* in quality is often noticed. The deterioration of wood is generally due to storing after felling to assemble them in number sufficient for despatch at a batch for convenience and minimising the cost of transport. They are hardly available fresh after felling.

22. No, the supply of wood is not yet found to be constant in respect of quantity. The supplier complains difficulty of felling in the forest due to Horse flies during the rains and flood and rise of river interrupts regular transport throughout the year.

(a) No.

(b) No.

(c) We do not know.

23. We do not know.

24. There is no definite assurance yet of sufficient supply for a very long period. Recently there has been some trial plantation of trees suitable for match manufacture by the Forest Department of the Government of Bihar and Orissa.

25. (i) No.

(ii) Yes, if any concession is allowed by rails and steamers it will be of advantage as that will be a facility for quick transport.

Other raw materials.

26 and 27. The following raw materials (other than wood) are required in this factory:—

Materials.	Quantity required for 100 gross.		
	lb.	oz.	
Gum Arabic	1	11	Head Composition.
Gum Arabic	1	3	Side „

*The supply of wood is not constant in respect of quantity but deterioration).

Materials.	Quantity required for 100 gross.		
	lb.	oz.	
Gum Tragacanth	0	1	} Side Composition.
Amorphous phosphorus	4	0	
Sulphide of antimony	0	3	
Sulphide of antimony	4	0	Head "
Glass powder	6	9	Head "
Glass powder	0	6	} Side "
Chalk	0	7	
Dextrine	0	3	} Head "
Glue	4	8	
Chlorate of potash	27	0	
Bichromate of potash	1	2	
Sulphur	1	11	
Umber	4	2	
Infusorial earth	0	9	
Red ochre	0	9	
Red Lead	1	2	
Match wax	17	0	
Wheat flour	0	9	} Paste.
Wheat flour	16	0	
Copper sulphate	1	4	
Outer Box paper	2		
Inner Box paper	5		} Reels.
Box label	14,400		
Dozen label	1,200		
Gross label	100		
Dozen packing paper	14,400		
Gross packing paper	100		

28. (a) and (b) We buy them from Indian market, but nothing is directly imported by us.

29. The following chemicals can be manufactured in India:—Gum Arabic, Glass powder, Chalk, Glue, Infusorial earth, Red ochre, Match wax, Wheat flour and Copper sulphate.

Labour.

30. We buy wood and we have no knowledge.

31. There has been no necessity of importing labour from abroad. Though skilled labour is not locally available, the local labour is given training and they get skilled gradually.

32. No imported labour employed here.

33. This question does not arise with us.

34. Total labour employed:—

Men.—55 at the average rate of As. 10 to As. 12 per head per diem.

Children.—18 at the average rate of As. 6 per head per diem.

Women.—Nil.

35. Yes, from the vicinity of the factory.

36. Yes, there is record.

37. There is no arrangement for housing labourers. They make their own arrangement.

Power.

38. Steam.

39. Electric power is not used and we have no relative knowledge.

40. Coal is used as fuel.

41. One ton of coal required for Power production per 100 gross output for this factory.

42. 149 miles.

43. The waste woods does not meet requirements—The rest of the question do not arise with us.

Market.

44. We have no knowledge about India's total demand for matches. It may roughly be taken to be about 100 to 135 lacks gross per annum.

45. It may with the increase of population—should the Industry be developed properly, but we are unable to make a forecast.

46. Local market consumes all of the manufacture of this factory.

47. No.

48. (a) We have no definite knowledge.

(b) No, I have no knowledge.

Competition.

49. Sweden, Wimco and Indian Manufacturers who use imported wood for splints.

50. Possibly with great difficulty they are competing with either. The severe competition is from Indian matches made with imported wood.

51. (1) We have no knowledge.

(2) This is beyond our period.

(3) We have no information.

52. From the statements of sea-borne trade and navigation of British India and from Commercial Intelligence Department.

53. I have no knowledge. These are points of their trade secrecy.

54. Yes. The Indian manufacturer is at a disadvantage in all of the points.

55. (a) May be said to be permanent.

(b) and (c) Temporary for about 10 years.

(d) Temporary for say about 20 years, in case the forest owners commence plantation and rearing of match wood and reserve the species suitable for Industry for the purpose of match manufacture alone. Transport difficulty is expected to close earlier and as soon as Railway and Steamer Companies give concessions.

(e) Temporary so long as Raw materials are not manufactured within the country.

(f) Temporary so long as there is no concession allowed by Railway or Steamer Companies.

(g) Temporary so long as wood is not grown or reserved particularly for the purpose of match manufacture.

(h) This is a matter for Government to adjust.

(i) Temporary so long as the capitalists will not be convinced of the prospects and till suitable measures are adopted to establish confidence in the future of the Industry.

Equipment.

56. No, it is not at all. The smallest unit of production in my opinion is 1,000 gross per day which can be operated economically under present day condition.

57. About 44 per cent. of the total capital outlay has been incurred on Plant and Machinery.

58. No.	Name of machines.	Makers.	Date on which first brought to use.
1	Engine	Davey Paxman	8-1-1926
1	Boiler		
1	Cross cut saw	Arehns & Co., Sweden.	
1	Peeling machine		
1	Peeling machine	Bengal Small Industries, Calcutta.	
1	Box chopping	Arehns & Co., Sweden	
1	Splint chopping		
1	Splint drying		
1	Splint polishing		
1	Splint cleaning		
1	Splint levelling		
1	Frame filling		
1	Outer box machine		
1	Inner box machine		
1	Box labelling		
1	Side painting		
1	Frame emptying		

(b) The machinery was purchased under the arrangement that the payment will be made after trial.

59. (a) Machinery and other equipment can be said up-to-date. We cannot compete and shall not be able to compete if the present duty is not maintained and in case an excise amounting to at least 8 annas per gross be not imposed on the products of big factories within India financed by foreign capital.

(b) (i) Debarking, (ii) Case filling, (iii) Paraffing, (iv) Dipping, (v) Box filling, (vi) Dozen and Gross parcelling and all transport of materials from one department to another. For a small factory as this, the foresaid operation by machines incurs great block capital which we are not in a position to afford to invest just now and hence advantageous for us to do manually.

60. (a) No.

(b) Yes, I contemplate addition of 3 box machines, two frame filling machines, one dipping machine and one box filling machine.

61. Nothing made in India.

Capital account.

62. (a) }
 (b) } Nil.
 (c) }

(d) Rs. 47,565-15-3 is the block value of Plant and Machinery.

(e) Rs. 2,982-7-11 is the block value of other assets.

63. Factory started hardly one year and there has been no reserve accumulate as yet.

64. We have no provision as yet.

65. The factory has recently been installed and no difference of cost in installing a new one at the present day is expected.

66. }
 67. }
 68. }
 69. }
 70. } We work with our own capital.
 71. }
 72. }
 73. }
 74. }

Works.cost.

75. We commenced work in 1926-27. and the form refers to time beyond our period.

76. In our period of work the factory had to stop manufacture for 4 months in the year and the items principally effected were office, establishment, house-rent and other non-manufacturing overhead charges.

77. Yes, sent herewith.

78. No, we are not in a position to answer this.

79. Rates of depreciation allowed by Income-tax office is not available.

A provision for depreciation should be made at the rate of:—

(a) 12½ per cent. for match machineries.

(b) 10 per cent. for wood construction.

(c) 5 per cent. for repairs shop machineries.

(d) 10 per cent. for Boiler.

(e) 6 per cent. for Engine.

(f) 45 per cent. for leather belting.

These rates are suggested on estimation of the life of these machines.

80. Having no knowledge about the depreciation of Income-tax rates this cannot be determined.

Working capital.

81. (i) and (ii) Working capital required for this factory is Rs. 15,000.

82. We required an additional grant last year.

83. This was a grant from the Government and provision for interest at 6½ per cent. should be made.

84. The cost of one month's output is about one-fifth of the working capital.

85. The value of our present stock is about Rs. 7,000 last year, the sale was arranged on two months' sight payment.

86. Yes, moderately large. The value of stock held is Rs. 8,000.

87. Yes. The Director of Industries' office is the head office.

88. (i) The head office (Director of Industries' office) does not charge any office expense up till now.

(ii) The Agent's commission is 5 per cent.

89. It is 5 per cent. of the total cost of matches, he removes at the rate of Re. 1-4 per gross.

90. (i) Nil.

(ii) Agent's commission is one anna per gross, whatever may be the output.

91 to 93. The question do not arise, as this is not a limited concern.

Claim for protection.

94. (A) Yes, India has so much forest areas that it has been observed that she can yield wood to meet any requirement for match manufacture in case due measures be taken. Regarding question of labour, it must be admitted that scarcity of labour cannot be apprehended. Of course skilled labour is often wanting at the start. But they pick up the work soon.

India's need for matches is about 100 to 135 lacks gross per annum, and she has thus a home market for about 40 factories of 1,000 gross output per day. Briefly speaking India possesses every natural advantage for the Industry which have been studied and observed by the Imperial Forest Economist Mr. R. S. Troup, F.C.H., in 1910 and subsequently by the Department of Industries of Bengal and that of Bihar and Orissa Governments.

(B) Yes, without the help of protection, the Industry is not likely to develop at all. It can hardly be expected that an Industry just attempted

to be taken up by a country may possibly live in competition with the long established manufacturers of the countries abroad even with all her natural advantages. India must have sufficient protection till she comes out to be the fittest to survive.

They say that the Industry in India is in its infancy, but it is far from that yet. India only conceived and this was sufficient to create a good deal of alarm in the continent and reckonable manufacturers from abroad, have immediately rushed in with huge capital for saving duties and all that to establish themselves firmly in the meanwhile within the country to give a death blow to India's conception about the Industry. Under the circumstances without sufficiently strong protection and care, miscarriage is inevitable.

(C) The disadvantages India is experiencing at present, *vide* answer to question No. 55, are all temporary and it is expected that she will eventually be able to compete with world competition without any protection in time.

95. (A) and (B) Yes.

96. The labourers of the isolated districts and those who are not usually occupied whole of their time will work in an industry very cheaply. These people are generally so much in economic stress that they are always open to take up any work which will bring some extra income over and above their usual work. Thus, division of process if this Industry is expected to make it particularly suitable to Indian economic condition.

97. (a) Re. 1-8 per gross on finished matches and As. 4-6 and As. 6 per lb. of splints and veneers for boxes respectively.

(b) We have no knowledge.

98 and 99. The amount of protection necessary is the retention of the existing duties on matches, splints and veneers.

Other than these protective duties, assistance is needed by way of:—

- (a) Imposing an excise at the rate of at least As. 8 per gross on the products of factories within India financed by foreign capital.
- (b) Moving the different railway and Steamers authorities to grant us facilities by reducing the freight of matches, chemicals and wood. The present rate is causing great hardship.
- (c) Preventing anything of the nature of monopoly or cornering the market in wood.

For reasons of recommending the above assistance, *vide* the views expressed by Indian Match Manufacturers Association in their letter No. 327 of 16th October 1926 to the Commerce Department, Government of India. We endorse the views.

Bombay Match Works, Bombay.

Letter dated 31st March 1927.

We have the pleasure to enclose herewith our answers to the questionnaire and believe the same will be found in order.

Answers to Questionnaire.

1. The firm was established in 1923. It is a private unregistered concern.
2. The entire capital is Indian. There are no directors. No Europeans are employed.
3. We manufacture splints, veneers and the finished matches totally.
4. End of November 1923.
5. 5,000 gross match boxes daily.

6. We manufacture half and full size matches.

7. 1923 (last month only).	1924.	1925	1926
26,900 gross.	5,99,700 gross.	6,60,100 gross.	8,43,800 gross.

8. The factory is situated at Kurla about ten miles run by railway from Victoria Terminus.

- (a) Yes.
- (b) Yes.
- (c) Yes.
- (d) Yes.

We consider that place a suitable site for a match factory where all the above-mentioned four conditions are synthetically fulfilled.

9. (a) Indian matches are not inferior to foreign made, but as foreign goods have imported in India since a long time, there has been an impression on the minds of Indian consumers that foreign matches are superior.

(b) As mentioned above the foreign brands are current here and hence it will take some time before Indian consumers realise that there is no difference. The same prejudice is against those foreign brands which are not introduced here but not to the extent as against Indian goods.

(c) We consider 1½ pie per box a fair measure for overcoming this prejudice.

- 10. (a) Yes.
- (b) Yes, but now we are using Indian wood as well.
- (c) No.

We import wood from Japan and Poland.

The rates for Japanese wood are Yen 2.05 per c.ft. c.i.f. imported in Bombay.

The landing charges are Rs. 2-10-0 per ton.

Duty is 15 per cent.

The rates of wood from Poland are £8 per ton c.i.f. all other charges are same.

11. (a) Indian Name.	Botanical name.
Salai.	Boswellia Serrata.
Ambo.	
Gugal.	
Mohine.	
Kakad.	
(b) Sawar.	Bombax malabaricum
(c) Old planks.	
Sawar planks.	Ditto

12. (a) The specimen wood that we have tried have so far been found not satisfactory in respect of colour and finish although there is nothing against the utility. We are confident if proper research is made under the guidance of experts certain specimen as good as imported wood can be found. There are certain specimen in the north of India such as poplar and fir which can be used as substitutes for foreign wood.

- (b) Yes.
- (c) Yes.

13. (a) 1,12,000 c.ft. Indian wood.

(b) 2,18,000 c.ft. Indian wood.

14. 10½ c.ft.

1,550 gross boxes.

32 × 23 × 21½.

100 gross boxes.

35 × 29 × 31.

These are external measurements and the thickness is ½" of all planks. We do not buy separate wood for packing cases.

16. From Borivali 20 miles away.
 From Godhra 250 miles away.
 From Janjira 50 miles away.
17. We buy *ex-factory* from contractors.
18. We do not pay any direct royalty to Government.
19. We buy *ex-factory* at Rs. 40 per ton of 50 c.ft.
20. We do not get any concession from Government, but we desire that some concessions be given to us in the shape of forest acquisition by royalty at minimum rates.
21. The supply of wood is not constant in quality as the wood growing in the plains is more suitable than that growing in hills.
22. The supply of wood is abundant.
- (a) No.
- (b) Yes the factory at Ambernath is competing to buy wood from nearer areas.
- (c) No.
- (d) No.
23. No.
24. Yes.
25. We get only fire wood rates but we desire that more concessions be given to us as we think by getting our supplies from Northern India for splints and this is not possible unless we get more concessions in railway freight. As at present the rates are too high for us to permit us from getting suitable wood from greater distances.

26. Paper, chemicals, paraffin wax.

They are used as under—

	Tons:
Paper	80
Chemicals	82
Paraffin	42
27. 1. Chlorate of Potash	9½ lbs.
2. Phosphorous Amorphous	1 ,,
3. Glue	2½ ,,
4. Salisilic powder	2 ,,
5. Manganese Oxide	1 ,,
6. Zinc white	3 oz.
7. Red lead	3 ,,
8. Red Ochre	¼ lb.
9. Sulphur powder	½ lb.
10. Bichromate of Potash	1½ oz.
11. Rosin	¼ lb.
12. Antimony Sulphide	9 oz.
13. Glass powder	3 ,,
14. Carbon black	1½ ,,
15. Paraffin wax	10 lbs.
16. Paper	18 ,,
17. Carboniser	3 ,,
18. Labels	15,000 small. 1,250 dozen labels. 210½ gross labels.

28. A. All are imported from abroad.

B. Nothing is manufactured in India but paraffin wax is locally purchased from Burma Oil Company Limited.

U. Nil.

(a) Out of the articles mentioned in 1927 numbers 1, 2 and 16 are of German, Norwegian and Swedish make respectively. Nos. 10, 11 and 15 are purchased in Bombay and the rest are all of Japan origin.

b) Prices are as under:—

- (1) £28-10-0 per ton c.i.f. Bombay.
- (2) £210 per ton c.i.f. Bombay.
- (3) Yen 32 per 50 kilos f.o.b. Kobe.
- (4) Yen 21.20 per 200 lbs. f.o.b. Kobe.
- (5) Yen 7 per 100 catties f.o.b. Kobe.
- (6) Yen 0.20 per lb. f.o.b. Kobe.
- (7) Yen 31 per 120 kins f.o.b. Kobe.
- (8) Yen 32 per 14 kwan f.o.b. Kobe.
- (9) Yen 8.50 per 100 kins f.o.b. Kobe.
- (10) Re. 0-5-0 per lb. free Bombay godown.
- (11) Re. 0-2-0 per lb.
- (12) Yen 28.50 per 100 catties f.o.b. Kobe.
- (13) Yen 3.50 per 100 kins.
- (14) Yen 0.39 per lb.
- (15) Re. 0-3-5 per lb. free Bombay godown.
- (16) £25 to £28 per ton c.i.f. Bombay.
- (17) Yen 36 per 24 kwan f.o.b. Kobe.
- (18) Small box labels 2d. to 4½d. from Sweden. Dozen labels sh. 1 to sh. 1-6 from Sweden. ¼ gross labels sh. 2-4 to sh. 4-8.

(c) Bombay.

(d) Freight, etc., on chemicals Yen. 22.20 per ton and insurance sen 30 per 100 yen.

(e) Rs. 3 per ton.

(f) Rs. 7 per ton.

(g) 15 per cent.

29. (a) All of them can be made if proper facilities are given.

(b) Nil.

30. No.

31. Very little, about .005.

32. Three and their pay is Rs. 800 per month collectively.

33. We have done away with one mechanic from abroad and hope to do away with two others in due course. We give all facilities to Indians to acquire knowledge of working various machines.

34. We employ total 600 workmen out of which 400 are women and children.

35. From vicinity.

36. Indian labour improves with training. We have records of this.

37. There is no necessity for this as we are employing all local labour. As for foreigners we have to provide quarters. We are promoting healthy conditions and children welfare.

38. We use crude oil engines.

39. No electric power is supplied to us although the Andhra Valley Power Supply line is near us. The Company is asking exorbitant charges for conveying the line to our factory and that too if we take a very high power which we do not require.

40. We do not use steam as power.

41. One-third gallon crude oil per one case of 100 gross.

42. Crude oil is bought from Bombay and transport charges are Rs. 2-3-0 per 100 gallons. Cost in Bombay is Rs. 80 per ton.

43. We do not use wood.

44. This can be well gathered from Sea Customs statistics.

45. Matches are a necessity of life and demand can increase only by increase of population.

46. We are supplying matches in the south till Mysore, north till Gujrat and Kathiawar and in the Central India till Nagpur.

47. We are ourselves situated near the port.

48. (a) Market for imported and Indian matches is not distinct. Indian matches have captured most of the markets.

(b) Yes, foreign matches imported in Native States are being sold at a cheaper rate near Bombay than those imported in Bombay.

49. Sweden and their local factory.

50. Foreign matches imported under the present duty cannot compete keenly with Indian matches but still this import cannot cease until consumers get accustomed to Indian matches.

51. 1918-22 only Japanese half size matches came to India and at the rate of Yen 130 to Yen 80 per case of 100 gross and were assessed at the then existing duty. We cannot say at what rate they were sold.

Since 1922 to 1926 Swedish matches are sold ex-godown by the Swedish Syndicate at Rs. 2-13-0 to Rs. 2-3-0 per gross. Our goods were sold at Rs. 2-1-0 to Re. 1-5-0 per gross 1923-26.

53. (a) Foreigners in order to keep their labels current in India offer to sell the goods at a loss inasmuch as they have various other markets where there is competition of prohibitive duty and where they can make profit to compensate for the loss made here—also to drive away Japan from the market which they have practically succeeded in doing.

(b) We suppose there is no margin for foreigners.

(c) We have reasons to believe that they cannot produce matches at such a low rate and hence they are sending at a lower rate than what they are selling in their home market.

54. (a) Not till now, but we apprehend the Swedish Syndicate will raise difficulties in our way.

(b) No.

(c) No.

(d) Yes, very high rates of transportation.

(e) No.

(f) Yes.

(g) Yes for foreign wood.

(h) Yes, we have to pay duty of 15 per cent. on all the imported materials which the foreigners have not to pay as they are getting all these materials in their country.

(i) No.

55. The disadvantages are such as can be remedied.

56. Yes. The smallest factory can be of 500 gross daily production.

57. 50 per cent.

58. (a) Our box-making machines are German and Swedish but the Swedish Syndicate has controlled both these factories so we have now to buy from other makers. Our peeling and chopping machines are Japanese and German and we find Japanese more adaptable to Indian labour. Our frame filling and other machines are Japanese and we find it quite suitable. The machinery was bought year-by year quite new and was brought into use as soon as received.

(b) We have no special arrangement with any machinery maker although some makers are offering the same we understand.

59. (a) No. Unless and until we know our real position that this industry will be properly supported and protected against unnatural competition of foreigners we cannot invest more sums in machinery. The policy of the foreigners is to dump the market and to ruin the Indian factories as they have done in other countries. We have therefore not put in all the up-to-date machinery as every year there is another fear of duty being decreased and unless this is assured it is not possible for us to invest more money in machinery.

(b) Packing and box-filling by manual labour, even some of the boxes are made by manual labour. If all this work was done by machinery there would be surely a decrease of about 4 annas per gross in cost.

60. (a) If our position is certain we can make all economic changes.

(b) We do not intend to extend the factory at present but we may do so if our position is certain but not until we have made the present output in the most economic way.

61. Some parts of machinery which are not available from foreign country immediately and without which we cannot pull on we generally make in India.

62. Building Rs. 1,00,000, Machinery Rs. 1,38,000 and other assets Rs. 2,30,000.

63. Above figures show the value after the depreciation has been written off. Depreciation has been written off as under—

	Rs.
Building	26,000
Machinery'	34,000
	Rs. 60,000

64. All the depreciation that has been written off is sufficient.

65. Our valuation on machinery and plant is actual and reasonable.

	1923.	1924.	1925.	1926.
	Rs.	Rs.	Rs.	Rs.
66. Building	12,550	76,800	19,500	17,600
Machinery	47,700	23,650	55,300	5,100

67. Ours is not a limited liability concern.

68. There is no fixed dividend.

69. No deferred shares.

70. We have got no shares.

71. There are no shares.

72. There are no debentures.

73. There is no reserve fund.

74. About Rs. 1,50,000.

75. ———

76. No.

77. No.

78. No.

79. 10 per cent. on machinery.

1½ per cent. on building.

80. (a) Rs. 19,000.
(b) Rs. 15,200.
81. (i) Rs. 2,30,000.
(ii) Rs. 3,00,000.
82. Yes.
83. None.
84. Working capital Rs. 2,30,000; cost of one month's output is Rs. 97,000.
85. The value of finished stock is about Rs. 50,000 and the money is returned after about a month of production.
86. Yes of wood.
87. Company has no head office but it has managing agents.
88. Agents commission is 1½ to 2 annas per gross.
89. After sale.
90. (i) There is no head office.
(ii) 1½ to 2 annas per gross, the commission is constant irrespective of output.
91. We have no shares.
92. We do not contemplate any establishment of a limited company but our answer to this question will be explicit from what follows.
93. Owing to the imminence of Swedish competition and the uncertain position of the present duty the investors would not easily be induced to put in any capital unless some very high rates of interest is promised and that too on very sound guarantee. We understand the Swedish Match Company which is a very sound concern promised to British public guaranteed return of 8 per cent. before they floated a small portion of the shares in the London market in order to show that the new company which is established in India is a British concern. Therefore it would be necessary to show on a very sound guaranteed fixed return of high interest to the subscribing public before they can be induced to take up shares.
94. (a) Yes.
(b) Yes.
(c) Yes.
95. (a) Yes.
(b) Yes.
96. Yes. The industry can be very well cultivated in India owing to cheap labour and owing to abundant supply of wood which is quite useless for any other purpose except for making matches.
97. (a) Although in the present circumstances there is an appaernt protection of Rs. 1-8-0 per gross but portion of this is being wiped off by the high prices of chemical which the Swedish Syndicate is controlling and also the 15 per cent duty that is to be paid by us on these high prices whereas the foreigners have not to pay this duty over these high prices.
(b) The protection by way of transportation of finished goods is very little owing to our inability to produce all raw materials and as duty must be paid on everything imported.
98. We consider that a protection of Rs. 1-8-0 be given to us on foreign goods and a protection of 8 annas on the goods made by the West India Match Manufacturing Company as their policy is to crush the Indian trade and monopolize the market. All we require transport facility.
99. We also crave the favour of putting a stoppage to the foreign goods landed in Native States ports and imported into British India or in the alternative the Government may determine the needs of the Native States and allow them to import only the needed quantity as we have strong reasons to believe that foreign matches are allowed to land in Native States and a rebate in duty is allowed to importers as an inducement. These goods are coming into British India and are sold even at a lower rate near Bombay

than the goods imported in Bombay. Further, some Native States have levied prohibitive duty on goods imported in their territory from British India. This is to discourage the Indian industry and encourage their object to import foreign goods so that their revenue may be enhanced as they charge a duty on foreign goods. We believe by this system of private rebate in duty and charging of duty on goods from British India the effect of protective duty is lost. If goods from British India are charged such exorbitant duty in Native States the goods from Native States should be charged similar duty when imported into British India.

The Titvala Match Factory, Titvala, Bombay.

Letter dated 1st April 1927.

In reply to the contents of your letter No. 209, dated 7th March 1927, we beg to state as follows:—

1. The factory was started in the year 1925. It is a private company and is an unregistered firm.
2. The capital held by Indians in this concern is Rs. 50,000. The firm consists of no Directors and Europeans. Europeans are not employed.
3. We undertake the whole process of manufacture.
4. From 1st April 1925.
5. 1,100 gross. (Eleven hundred.)
6. Dimension of the match box, $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times \frac{1}{4}''$. Average splints in a box 60.
7. Three Lakhs gross. (300,000 Gross).
8. Titvala. No special advantage in any of the 4 points.
9. Where there is an abundant and continuous supply of timber suitable for match making.
 - (a) Indian matches are not inferior to those which are imported, but since a long time there has been an impression on the minds of the consumers that imported matches are of superior quality.
 - (b) No.
 - (c) We consider $1\frac{1}{2}$ pie per box a fair measure for overcoming the prejudice.
10. (a) Yes.
 - (b) Yes, but now we are utilising Indian wood.
 - (c) No.
- We import wood from Japan and Poland.

The rate for Japanese wood is Yen 2 per c.ft. c.i.f., imported in Bombay.

The landing charges are Rs. 2-10 per ton.

Transport charges Rs. 9 per ton.

Duty is 15 per cent.
11. The rates of wood from Poland are £8 per ton c.i.f. and all the other charges are same as above.

11. (a)

Indian name.	Botanical name.
Salai.	Boswellia.
Ambo.	Serratta.
Gugal.	
Mahine.	
Kakad.	
(b) Sawar.	Bombax.
(c) Old planks.	Malabaricum.
Sawar planks,	Bombay, Malabaricum.

12. (a) The specimen wood that we have tried have so far been found not satisfactory in respect of colour and finish although there is nothing against the utility. We are confident if proper research is made under the guidance of experts certain specimens as good as imported wood can be found. There are certain specimens in the North of India such as Poplar and Fir which can be used as substitutes for foreign wood.

(b) Yes.

(c) Yes.

13. (a) 32,000 c.ft. of wood.

(b) 40,000 c.ft. of wood.

14. $10\frac{1}{2}$ c.ft. of wood.

15.

50 gross boxes
32 × 23 × 21 $\frac{1}{4}$

100 gross boxes.
35 × 29 × 31.

These are external measurement and the thickness is $\frac{3}{8}$ " of all planks. We do not buy separate wood for packing cases.

16. From Kalyan 10 miles. From Godhra 350 miles. From Janjira 75 miles.

17. We buy ex-factory from the contractors.

18. We do not pay any royalty to Government.

19. We purchase ex-factory at Rs. 42 per ton of 50 c.ft.

20. We do not get any concession from the Government but we wish that some concession be given to us in the shape of forest acquisition by royalty at minimum rates.

21. The supply of wood is not constant in quality as the wood growing in plain is more suitable than that growing on hills.

22. The supply of wood is abundant.

(a) No.

(b) Yes, the factory at Ambarnath is competing to buy wood from nearer areas.

(c) No.

(d) No.

23. No.

24. Yes.

25. We get only fire wood rates but we wish that more concessions be given to us as we think by getting our supplies from Northern India for splints and this is not possible unless we get more concession in railway freight. As at present the rates are too high for us to permit us from getting suitable wood from far distance.

26. Paper, Chemicals, Paraffin Wax.

They are used as under:—

	Tons.
Paper	32
Chemicals	35
Paraffin W.	17

29. (a) All of them can be made if proper facilities are afforded.

(b) Nil.

30. No.

31. About three.

32. Two and their pay is Rupees four hundred and seventy-five per month.

33. We hope to do away with two of them in very short period. We give all facilities to Indians to acquire knowledge of working various machines.

34. We employ total five hundred and twenty-five workmen out of which three hundred and seventy-five are women and children.

35. From vicinity.

36. Indian labour improves with training. We have records of this.

37. There is no necessity for this as we are employing all local labour. As for foreigners we have to produce quarters. We are prompting healthy conditions and children welfare.

38. Steam.

39. No electric power is supplied to us.

40. We use steam as power. For fuel we use waste wood.

43. We need the whole of our requirements from waste wood in our factory.

44. This can be well gathered from Sea Customs Statistics.

45. Do not know.

46. We are supplying matches in the South till Mysore, North till Gujrat and Kathiavad, and in the Central India till Nagpore.

47. We are ourselves situated near the port.

48. (a) Market for imported and Indian matches is not distinct. Indian matches have captured most of the markets.

(b) Yes, foreign matches imported in Native States are being sold at a cheaper rate near Bombay than those imported in Bombay.

49. Sweden and their local factories.

50. Foreign matches imported under the present duty cannot compete keenly with Indian matches but still this import cannot cease until consumers get use to Indian matches.

51. 1918-22 only Japanese half size matches came to India and at the rate of Yen. 105'00 to Yen. 70'00. The rate of Yen. 105'00 to Yen. 70'00 per case of 100 gross and were assessed at the then existing duty. We cannot say at what rate they were disposed. Since 1922 to 1926 Swedish matches are sold ex-godown by the Swedish Syndicate at Rs. 2-11 to Rs. 2-5 per gross. Our goods were sold at Rs. 2-3 to Rs. 1-5 per gross, 1923 to 1926.

52. From old matches dealers.

53. (a) Foreigners in order to keep their labels current in Indian market offer to sell the goods at a loss as they have various other markets where there exists no competition of prohibitive duty and where they can make profit to compensate for the loss incurred here.

(b) We presume there is no margin for foreigners.

(c) We have reasons to believe that they cannot produce matches at such a lower rate and hence they are sending at a lower rate than what they are selling in their home market.

54. No.

(a) No.

(b) No.

(c) No.

(d) Yes, very high rates of transportation.

(e) No.

(f) Yes.

(g) Yes, for foreign wood.

(h) Yes, we have to pay duty of 15 per cent. on all the imported materials which the foreigners have not to pay as they are getting all these materials in their own country.

(i) No.

55. The disadvantages are such as can be remedied.

56. Yes. The smallest factory can be of 500 to 600 gross daily output.

57. 40 per cent.

58. (a) We have no box making machine but we make them by hand. Our peeling and chopping machines are all Japanese made. We find Japanese more adaptable to Indian labour. Our frame filling and other machines are Japanese made and we find them quite suitable.

(b) No.

59. (a) Yes.

(b) Head composition, side composition, box-making, labelling, filling, packing into one dozen and half gross packets.

60. (a) Yes.

(b) Yes.

61. Nothing as far as we know.

62. Lands and buildings on lease.

Machinery valued at Rs. 15,000.

63. Not available at present.

64 to 66. Not available at present.

67 to 73. Not concerned, the company being a private concern.

74. Impossible to give a right figure of the amount.

76. No.

77. No.

78. No.

79. 10 per cent. on machinery.

81. (i) Rs. 50,000.

(ii) Rs. 80,000.

82. Yes.

83. None.

84. Cost of monthly output is Rs. 28,000, while the working capital is Rs. 50,000.

85. Rs. 20,000, and the money is returned three weeks after the delivery.

86. Yes, of wood.

87. No head office.

88. Agent's commission is half an anna per gross.

89. After the sale is completed.

90. (i) There is no Head office.

(ii) Half an anna per gross.

91 to 93. We have no concern as our company is a private one.

94. (a) Yes.

(b) Yes.

(c) Yes.

95. (a) Yes.

(b) Yes.

96. The industry can be put on a good footing in India owing to cheap labour and abundant supply of wood.

97. The protection in form of Custom's Duty is Re. 1-8 per gross: but in reality it does not in any way benefit the industry as high rates are charged for imported chemicals.

(ii) No concessions are allowed on transport charges.

98 and 99. Protection is very essential and the reasons for the same are given in the report dated Bombay, 22nd December 1926, to the Secretary of the Tariff Board by the Indian Match Manufacturers Association.

The Santa Cruz Match Works, Bombay.

Letter dated 2nd April 1927.

With reference to your letter dated the 7th ultimo, we enclose herewith our reply to the questions drawn up by the Tariff Board in connection with the enquiry into Match-making Industry.

Replies to questionnaire.

1. 1924. Private unregistered firm.
2. Rs. 4,00,000; purely Indian concern.
3. We undertake the whole process of manufacture.
4. 1924.
5. Full capacity of 2,500 gross boxes per day.
6. Standard half size matches about 55 to 60 splints in a box
7. 1924-25, 6,355 of 100 gross each.
1925-26, 7,493 of 100 gross each.
1926-27, 6,459 of 100 gross each.
8. At Santa Cruz near Bombay.

(a) Disadvantageous as raw materials are not easily procurable.
(b) Factory worked by our steam and gas plants as outside power is not obtainable.

(c) Near the Bombay market.

(d) Labour can be had in any quantity as the factory is situated between Santa Cruz and Ville Parle villages and a great deal of work is being paid for on piece-work system. Many labourers are able to put in their spare hours on the factory.

Perhaps the most important factor would be proximity to a big market. Next in importance would be proximity to timber forests suitable for match manufacture. To suit the requirements of the various Indian markets matches are manufactured in various sizes and quality, the prices ranging from Re. 1 per gross to Re. 1-5-0.

9. (a) We do not think that the Indian manufactured matches are inferior to imported matches.

(b) At first people were afraid to buy Indian matches fearing that they would deteriorate in quality during the monsoon but by experience they are gradually finding out that their fear is unfounded.

(c) The present price of imported matches is 4½ pies per box and that of Indian manufacture is 3 pies per box. If this difference is maintained, the industry has the fair chance of holding its own against foreign competition.

10. (a) No, but we did and still do import wood from Japan, as owing to the whiter appearance of the wood imported from Japan, it is easier to sell matches made of same and white coloured wood is not procurable by us, unless at prohibitive prices owing to heavy railway transport charges on same.

11. We import wood from Japan.

(a) Mango, Ambadi.

(b) Sawar and Gugal.

(c) Nil.

12. (a) The colour being darker and the wood being slightly harder, it takes more paraffine in order to obtain good results, but researches have been made and satisfactory wood has been located in Dehra Dun and the Punjab which leads us to hope that if proper Railway transport facilities are given and the research seriously undertaken it will be possible to get both fresher and whiter wood than that which is imported. We feel sure that if proper researches are carried out in the Bombay Presidency forests it would be possible to get suitable timber for the factory.

- (b) Yes.
13. (a) About 1,500 tons.
(b) About 2,500 tons.
14. About 12 c.ft. per case of 100 gross boxes.
15. The standard sizes 100 gross boxes of matches.
16. From Gujrat district. About 200 to 250 miles from the factory.
17. By hand labour, and transported by carts to the Railway and by rail to Andheri station from where it is brought to the factory in a motor lorry.
18. Annas 8 per cart-load taken out from the forest.
19. Approximately Rs. 40 per 50 c.ft.
20. On payment of fees we are allowed to take as many cart-loads as paid for.
21. We do not get any special concession. Wood of the same species from different localities shows some variation in quality.
22. The trees which are being used for this purpose and which are near the railway station being now nearly consumed, we have to go deeper in the forest for our supplies.
- (a)
(b) Yes.
(c) Yes.
(d)
- 23.
24. Yes, but up to the present no measures have been taken (in view of the large areas of match wood obtainable in different parts of India we do not anticipate there is any likelihood of a shortage in the near future. So far no trees have been planted with a view to use them specially for the match industry.
25. We are getting a special concession on match wood transported from the railways but the freight rates are still prohibitive and unless they are greatly reduced it will not be possible for us to avail ourselves of the timber obtainable in the forests situated at any distance from the factory.
26. The principal raw materials other than wood required for a match factory are:—Paper, Chemicals, such as Chlorate of Potash, Sulphur Paraffine, Oxide of Iron, Red Manganese, Red Phosphorus, Bichromate of Potash, Black Antimony, Sulphide, Glue, etc.
- 27.
28. Glue, Oxide of Iron, Glass Powder are obtainable in India; other chemicals have to be imported from Japan or the Continent.
29. Most of the chemicals are likely to be manufactured in India excepting Sulphur powder provided the Government is willing to support such industries. The raw materials required for the manufacture of these chemicals can be obtained in India.
30.
31.
32.
33. When the factory was started we had three Japanese experts to supervise the manufacture of matches. Since the last two years we have been able to dispense with their services and have substituted Indians in their places. The Indian workmen are trained in each separate department by Indian experts and during the time of training they receive a wage of annas 12 per day in order that they may be able to maintain themselves.
34. The total number of workmen in our factory is 1,000; out of these about 500 are women and children. The average rate of skilled male labourer is about Re. 1-8-0 a day. Most of the work is carried out on the piece-work system and the individual earning depends on the skill of each workman, the women and children in some cases earning as much as Re. 1 per day.

35. The labour is drawn from the villages of Santa Cruz and Ville Parle, which are situated within a half of the factory.

36. Unquestionable. We have records in our various departments to show that with a little training the labourer can do as much as three times the work he could do before he was trained.

37. We have put up huts outside the factory limits to accommodate our workmen on a nominal rent. Besides we have rented a pucca built quarters, and we are accommodating a few workers in them free of any charge. Healthy accommodation is also available just outside the factory limits where corrugated iron sheds have been put up after the factory came into existence, for the convenience of the workmen. There are nearly 200 half-time workers (being over 12 years and under 16) employed by us and we had made an application to the Bombay Government for permission to erect a shed on the factory premises with a view to open a school for elementary education for them. The permission was, however, refused by the Government who did not assign any reason for the refusal.

Power.

38. We generate power used for working our factory from our own steam and gas plants.

39. No electric power is used.

40. Coal is not used but we use wood shaving, bark, waste and dry match wood (which is unsuitable for match manufacture) for the steam boiler and for generating gas for our gas plants. It is available in sufficient quantity.

41. About 75 lbs. of dry wood and wood shaving are required to turn out a case of 100 gross boxes.

42. Same as the price of match wood being about Rs. 40 per ton delivered factory.

43. Yes.

Market.

44.

45.

46. Bombay which is about 12 miles from the factory, Karachi, Hyderabad (Deccan), Madras.

47. None.

48. (a) At present about two-thirds of total quantity consumed in India are matches of Swedish manufacture, balance being Indian made matches. However the progress in the sale of Indian matches is very satisfactory so far and if it continues in the same way we think it stands a good chance of capturing the markets which are supplied by Swedish goods at present.

(b) Yes. According to the rumours.

Competition.

49. Sweden and the factories established here by the Swedish-American Trust.

50. Yes, they do compete. It is reported that the legal import duty of Re. 1-8-0 per gross is not levied on imported goods when imported through certain ports and consequently importers are in a position to undersell Indian manufacture.

51. (3) 1924 Re. 1-12-0.

1925 Re. 1-11-0.

1926 Re. 1-4-0 to Re. 1-6-0.

52.

53.

54. (a) Yes. As the machinery is imported, freight duty and other transport charges have to be added on to the cost.

(b) No. As Indian labour is both cheaper and equally expert.

(c) Great advantage over the foreign manufacture, as cost much cheaper and very efficient.

(d) The cost of standing wood is very much cheaper than the cost of imported wood, but the transport charges by rail are comparatively much more than the transport charges on imported goods by sea. However, in spite of this it is possible to get Indian wood delivered at the factory at a third of the cost of imported wood.

(e) We are using imported raw materials, the cost being higher than the price at which they can be purchased in the country where they are produced.

(f) The Indian manufactured matches are booked on the Bombay, Baroda and Central India Railway at a special concession rate and the imported matches are again at a disadvantage here; however, there is room for further reduction in the rate and arrangement should also be made with other Railway Companies to give us the same concession.

(g) The machinery being extremely simple only a negligible stock of spare parts are needed for same. Wood can always be obtained excepting during the four months of the rainy season when it is necessary to carry stocks for the period.

(h) Import duty has to be paid on the materials that have of necessity to be imported.

(i) No difficulty in raising Capital for an Industry of this nature.

55. (a) and (e) Appear to be permanent disadvantages for the next two years.

Equipment.

56. Yes. A factory with a capacity of about 1,000 gross boxes per day could in our opinion be operated economically.

57. About 60 per cent.

58. We have two main Departments in our factory: (1) Box and Splint-making Department, (2) Framing, Tipping and Packing Department. Department (1) is worked by Ruston and Hornsby gas plant 36 B. H. P. The principal machines are:—

- 3 Japanese splint veneering machines.
- 3 Japanese splint chopping machines.
- 1 German (Badische) outside box veneering machine.
- 4 Japanese inside and outside box veneering machines.
- 2 German veneer chopping machines (Badische).
- 12 Outside box making machines (Badische).
- 12 Inside box making machines (Badische).
- 1 Drying chamber.

Department (2) worked by Marshall's steam engine 33 B. H. P.

- 20 Framing machines (Japanese).
- 8 Releasing machines (Japanese).
- 1 Tipping machine (Badische).
- 3 Splint settling machines (Japanese).
- 3 Splint polishing machines (India).
- 2 Paraffine sets (1 Indian 1 Japanese).
- 2 Chemical mixing machines.

59. (a) Yes.

(b) (1) Labelling is done by hand on piece-work system, our rate being 1 anna 6 pies per 1,000 boxes. We have also tried labelling by machine (both Japanese and German) but the cost amounts to about the same.

(2) Filling is done by hand on piece-work system, our rate being 2 annas 3 pies per tray of 200 boxes or Rs. 10-2-0 per case of 100 gross. Probably the filling by machine would be 100 per cent. cheaper.

(3) Gross and dozen packing is also done by hand on piece-work system. The cost per case of 100 gross being about Rs. 2 machine packing would probably be 100 per cent. cheaper.

60. (a) No.

(b) We wish to purchase 5 box filling machines of Swedish manufacture, each costing about Rs. 10,000 including fixing charges.

61. 3 splint polishing drums
1 space mixing machine
1 paraffine set operated by steam } made by us in our factory.

Capital account.

62. The total value would be about Rs. 5,00,000 including the land which has been in our possession since the last 30 years and which at present would be worth about Rs. 1,00,000.

63.

64.

65. (a) Rs. 1,00,000.

(b) Rs. 1,50,000.

The new factory could probably be erected at a slightly reduced cost owing to the experience we have gained in the setting up and handling of machinery. The working cost would however be about the same.

66.

67. Private unregistered firm.

68. Not a Limited Company. There are no Preference Shares.

69. No Deferred Shares.

70. (a) Nil.

(b) Nil.

(c) Nil.

71. Nil.

72. Nil.

73. Nil.

74. Nil.

75. Rs. 115 per case of 100 gross.

76. Yes.

77. No.

78. No.

Overhead charges.

(i) *Depreciation allowed by Income-Tax Office.*

79. Building 5 per cent. Machinery 6½ per cent.

80. We think that there should be an allowance of at least 20 per cent. to 25 per cent. for depreciation on machinery as owing to the heavy strain it has to undergo when its use wears it out very quickly and it has to be kept in a constant state of repairs which are undertaken locally.

(ii) *Working capital.*

81. (i) About Rs. 2,00,000.

(ii) About Rs. 3,00,000.

82. Not a Limited Company.

83. Nil.

84.

85. About Rs. 75,000 from 15 days to 60 days.

86. It is necessary to hold stock of suitable timber, the average value of the stocks held being about Rs. 25,000.

(iii) *Agents' commission and office expenses.*

87. No, it has no Head Office, but it is a private partnership firm. It is under the control of managing partners who do not charge any commission.

88.

89. The Agents get a share out of the profit of the firm.

90.

91.

92.

93.

94. (a) Yes. There are huge timber forests all over India where suitable wood for matches can be obtained, provided proper facilities can be had for their transport. The wood can be purchased at comparatively very cheap prices but on account of the exorbitant freight charged by the Railway Companies on same, it does not pay to bring the wood from any distance. Power can also be obtained for only nominal charges as the wood shaving bark and dried wood which is practically useless for any other purpose can be utilised as fuel for generating power. Indian labour is possibly the cheapest in the world and it can be had in any quantity required and we are placed in specially advantageous circumstances owing to the situation of our factory as labour can be obtained for same from the villages of Santa Cruz and Ville Parle. On account of the huge population in India there is a great demand for matches and provided the Industry is encouraged and proper facilities are available for exploiting the sundry markets in India there is no doubt that Indian matches will to a great extent replace the imported goods in a few years.

(b) Yes. Unless the Industry is protected it is not likely to thrive. Owing to lack of sufficient experience and heavy cost of transport, Indian factories are unable to turn out matches at cheap prices. Besides the Swedish brands have been established here since a number of years and it is not easy to replace a label that is current in the market except by long and continued persistence.

(c) Yes. After the Indian factory acquires the same experience as that acquired by the Swedish manufacturers and proper transport and other facilities are given, there is no reason why the Industry should eventually be unable to face world competition being so favourably placed in regard to labour which is no inconsiderable item in the cost of match manufacture.

95. (a) Yes. The advantages of large scale production are apparent, as an increasing output requires comparatively a lesser amount of labour. This is particularly noticeable in the overhead charges.

(b) Yes.

96. The outstanding feature is the extremely cheap and abundant labour obtainable in India owing to low cost of living. The climatic conditions are also favourable inasmuch as a continuous and uninterrupted production of matches can be maintained here owing to entire absence of rain during eight months in the year. If equally great facilities could be obtained in transport of match wood, it would perhaps be possible to get same here at even lower prices than match wood obtainable in Sweden and Japan.

97. Re. 1-8 per gross.

98. The present duty of Rs. 150 per case of 100 gross should be maintained. At present there is a difference of about 50 per cent. in the selling price alone of Swedish and Indian matches owing to the good reputation the Swedish goods have gained in this market during the last 15 or 20 years. On the other hand the cost of Indian matches at present is almost the double of the cost of foreign manufactured matches, both on account of heavy transport charges on timber and lack of experience in the method of economic manufacture. It has also been reported that the Swedish manufacturers with huge Capitals to back them are even selling at a loss in the hope of recapturing the Indian markets that are slowly but surely going out of their hands, and are being captured by equally superior and much cheaper Indian matches. In view of

the above, we think that at least the present rate of duty should be maintained.

99. The Railways should be induced to offer very much cheaper freight rates on match wood if foreign competition is to be overcome, as in the face of the extremely heavy transport charges on timber, which otherwise can be obtained very cheap, little can be done in the reduction of the present high cost of manufacture, at least during the course of the next two years. Although slight concessions are given by the Bombay, Baroda and Central India Railway for transport of Indian made matches there is still a great margin for a further reduction in the rates so that Indian manufactured goods with its higher cost of production may to some extent get an advantage over imported goods, and be in a position to hold its own against foreign competition.

Andheri Match Company, Bombay.

Letter dated the 2nd April 1927.

With reference to your letter No. 209, dated the 7th March 1927, we beg to send herewith seven copies of the replies to the questionnaire for the consideration of the Tariff Board.

Replies of the Andheri Match Company, Andheri (Bombay), to the questionnaires of the Tariff Board (Match Industry Inquiry).

1. Established in 1924; It is a private unregistered firm.
2. The whole capital invested in the firm is held by Indians. There are no Europeans employed in the firm.
3. The firm undertakes the whole process of manufacture.
4. The factory commenced to manufacture in January 1925.
5. 35 cases of 100 gross each per day.
6. Half size; $\frac{3}{4}$ size; full size. We manufacture mostly half size; and the average number of matches in each box is about 60 matches.

7.

8. Situated at Andheri.

(a) Yes to some extent.

(b) Yes as we use oil and wood as fuel.

(c) Yes.

(d) Yes.

A site where raw material and good market are available.

9. (a) The Indian manufactured matches are in no way inferior to those imported either from Japan and Europe. But as various kinds of imported matches have been imported into India since several years including Japanese, there is an impression prevailing that it is inferior. The factories in India are producing such qualities as are in demand in different provinces and districts in India and until for some time it is used as is usual Indians do not readily buy new labels.

(b) There is no particular prejudice against Indian make but owing to many years' import of foreign matches, it has become a habit with the people to ask for matches bearing those labels and this habit can only be counteracted by sale of Indian matches at cheaper rates. The gradual capturing of the market by Indian produce is evident from increased sales of Indian matches, and if sufficient protection is given for a reasonable time to the industry it will have a fair chance of establishing itself against any competition.

(c) The present retail price of one match box manufactured in India is three pies while that of an imported one is 4 $\frac{1}{2}$ pies, if this difference is maintained, then the public will go in for Indian matches.

10. (a) We have found it necessary to a large extent to import wood for the manufacture of splints.

(b) No.

(c) No.

(1), (2), (3) We buy mostly from Japan and Gothenbourg and the c.i.f. cost is about £8 to £9 per ton of 50 c.f.t.

(4) and (5) Rs. 8 per ton.

(6) 15 per cent.

(a) Gugal, Ambo; Magnifera Indica. Ambada; Spondias Magnifera. Shemut, Odina Wodier, Baban, Bahan, Populus Euphratica.

(b)

(c) Old deodar planks and Sawar and Shemut.

12. (a) Yes a very few species.

(b) Yes.

(c) Yes.

Though we are using at present some species of Indian soft wood such as Amba, Gugal, for the manufacture of splints still these species do not come up to the mark of the imported wood. But we fully believe that if proper researches are conducted into the suitability of soft wood for match industry requirements, ample supply of such wood not inferior to imported one will be available from Indian Forests. As far as our knowledge goes attempts are being made and researches conducted by the Forest Research Institute, under the guidance of Mr. Wilson, the Forest Economist to the Government of India, towards this object and some very useful species are reported to be found in Andamans and Burma Forests. If these researches are conducted seriously with the help of Indian Match Manufacturing concerns, there is no ground to be afraid of shortage of suitable soft wood required for this industry.

13. (a) and (b) About 3,000 tons per annum.

14. Good wood about 8½ c.ft. Ordinary wood about 10 c.ft.

15. Usual 50 gross and 100 gross packing cases.

16. Thana and Gujarath.

17. By manual labour.

18. Rs. 2-8-0 per cart load of legs extracted.

19. The cost of wood delivered at factory comes to about Rs. 30 to Rs. 40 per ton for Indian wood and about Rs. 100 to Rs. 125 per ton for Foreign wood.

20. The terms are the same as are offered to the fuel coup contractors and there is nothing unfavourable about the terms.

21. As regards any quality we have not found any deterioration.

22. (a) We have to draw from greater distance special wood for splints.

(b) To some extent.

(c) To some extent.

23. Indian wood costs about Rs. 30 to Rs. 40 per ton.

24. Yes, so far as wood for veneer is concerned, but for splints we have to look to Punjab and Burma. We have been negotiating with the Forest Economist, Mr. Wilson, who is trying to solve the problem by plantations and we understand that Government is considering the question.

25. No special concession is allowed by Railways for the carriage of wood except that it is carried at the rate of "Fuel" if the consignments are required for *bond fide* use of a factory, unless special facilities are offered to match concerns for carriage of soft wood, the resources of Indian Forests will not be fully availed off by Indian concerns and a concession to the extent of 30 to 50 per cent. in the Railway charges will help the industry.

26 and 27. Raw materials other than wood.

	lbs.	Total in a year, Ton. cwt. lb.
Chlorate of Potash	14	61 12 0
Red Manganese	5½	24 4 0
Sulphur	3	13 4 0
Bichromate of Potash	½	2 4 0
Iron Oxide	2½	11 0 0
Glass Powder	2½	11 0 0
Zinc Powder	1	4 0 0
Kisel	2½	11 0 0
Red lead	½	2 4 0
Glue	3½	15 8 0
Red oxide	½	2 4 0
Yellow oxide of lead	½	2 4 0
Amorphous Phosphorus	1½	6 12 0
Black Sulphide of Antimony	2	8 16 0
Paraffin	11	48 8 0
and		

Paer,—Blue Green and Craft.—

The above is the quantity required for the manufacture of one case containing 100 gross.

28. A. Almost all the articles mentioned above are imported except some quality of Indian paper which is used in the manufacture.

B. Information will be sent hereafter.

29. Information will be sent hereafter.

30. No, there will not be any difficulty in securing sufficient labour in this country.

31. It has for the present to rely to a very negligible extent upon imported skilled labour but in few years' time this kind of labour will also be available in sufficient number.

32. 4 persons as assistants; their total pay comes to about Rs. 800 per month.

33. There was no imported labour to any appreciable extent; there were at time 7 assistants but now there are only 4 and every facility is given to Indian workmen to learn the art of mixing chemicals which is the only process that requires skilled labour. Out of these 4 assistants, 2 are going away by the end of July and the Indians working under them will be placed to look after the work of the imported ones.

34. The total number of workmen working within factory are 450, out of which 250 are men, 150 women and 50 boys. A man gets from Re. 1 to Re. 1-2; a woman from annas 10 to annas 12 and a boy from annas 6 to annas 8 per day. Besides these about 250 to 300 women do in their homes the work of pasting veneers.

35. It is all drawn from the vicinity of the site.

36. Yes; but we have not got any record.

37. There is no need for housing the labour in a suburban area.

38. Power used is derived from oil fuel and wood.

39. Does not arise.

40. Oil and wood fuel is used and the same is available in sufficient quantities.

41. No detailed particulars have been kept.

42. The cost of oil fuel delivered at the factory is about Rs. 50 per ton while that of the wood is about Rs. 20 per ton.

43. We use very little wood besides the oil and that is met from waste-wood.
44. About 20,000,000 gross of matches per year.
45. The demand is likely to increase and the reasons are that the matches are a every-day necessity of life and depends upon the increase of population and prosperity of the country.
46. Demands for our matches are all over the country and they will be saleable in even the remotest part if transport facilities are given by the railways.
47. Our factory being near Bombay we are placed in almost the same position as the foreign importers.
48. (a) There is no special distinction.
- (b) There is every ground to suppose about the illicit imports of matches into India. The opening up of Kathiawar ports and diversion of trade from Bombay to these ports justify our conclusion. The very fact that matches imported through these Kathiawar ports are sold cheaper in the vicinity of Bombay goes to prove the contention that there must be something very wrong with these ports.
49. Sweden.
50. Yes with both.
51. The rates as far as available at which the Swedish imported matches were sold in the market to the wholesale-dealers.

Year.	Rate for	Rate
	Swedish Synd. Matches.	for Indian Matches.
		Rs. A. P.
1923	2 0 0	2 1 0 per gross.
1924	2 0 0	1 11 6 to 1 12 0
1925	1 13 0	" "
1926	1 10 6	1 8 6 to 1 9 0
	1 8 0	1 5 6 to 1 6 0
	1 6 6	1 5 0

52. This information can be obtained from Mr. Abdulali Shaikh Adam and Mr. Abdulali Shaikh Ebrahim, who are very old and large dealers in this line having been in this business for over 30 years.

53. Imported matches are sold at a fairly competitive rates but it is not this imported matches which is at present competing with Indian make because there is duty of Rs. 1-8 per gross but the Swedish Syndicate which is the largest and almost the only importer of imported matches have established factories in India and they have been selling at very low prices and are out for competing with the Indian product. They never sell at places where the Indian matches are not sold for the simple reason that the Swedish imported matches sold there. The Swedish Syndicate have openly declared in unequivocal terms to various Indian factory owners, to the merchants and to the dealers that their factories are established in India with the sole object of forcing down the Indian factories and ultimately to have for the Swedish imported matches the sole monopoly of India just as they have acquired monopoly for Syndicate goods in various parts of the world. There is no dealer, or a merchant or a factory owner who is not aware of this declaration, the intended policy. We also draw the attention of the Board to the resolution, passed at Calcutta by the conference of all Match Manufacturers held in December 1926 and also the resolution passed at the Indian Industrial and Commercial Congress, held at Calcutta on the 31st December 1926 and 1st and 2nd January 1927, copies of the same are attached herewith.

54. (a) It is not at much disadvantages as the plant and machinery which most of the Indian factories use could be manufactured in India and up to now

it is also available from Japan and from some of the European countries; but attempts must be made to manufacture simple machinery in India as soon as possible, because it is a well-known fact that the Swedish Syndicate has been trying to acquire machinery works and they have already acquired some important works and as is their policy the Indian concerns will have either to close down or to pay the price the Syndicate may demand. This equally applies to chemical works on the Continent with regard to which the Syndicate is adopting the same policy. The details of their policy have already been given fully by the representation submitted by the Indian Match Manufacturers' Association, Bombay Presidency, Bombay.

(b) No.

(c) No.

(d), (e) and (f) Yes.

(g) To some extent.

(h) Yes.

(i) There is some difficulty in view of the Swedish Syndicate's threatening policy; but if a definite move towards protection by Government is made ample capital will be forthcoming.

55. We consider these disadvantages temporary as we expect Government to protect us against this foreign Syndicate.

56. Yes. Even if a factory produces 5 cases and if there is no foreign competition, we mean Swedish Syndicate's Indian manufactured goods being sold cheaper, this industry being so simple will be able to stay.

57. About 25 per cent.

58. (a) Most of our machinery is of the Japanese make as is usually used in Japanese factories; there are very few machines for veneer making of Swedish and German make.

(b) No.

59. (a) Yes.

(b) Most of the process are carried out by manual labour.

60. (a) and (b) We shall certainly like to extend the capacity of our factory to double the present size because there is sufficient demand for our goods in the country but in view of the above-stated competition we are not inclined to do so.

61. Please refer to reply question No. 58.

62. (a), (b), (c), (d) and (e) The value is about Rs. 2,50,000 besides the value of the stock and raw material is about Rs. 3 lakhs.

63. Value as at present.

64. No such special depreciation fund is maintained.

65. Same as we have incurred and the same will be at present.

66. As we have not imported any machinery of any appreciable value from Europe, the exchange does not affect us.

67, 68, 69, 70 and 71. Does not arise as it is a private company.

72. Does not arise in our case, however, we may mention that if a loan is required it cannot be had for less than 9 per cent. interest; but if protection is granted and once the position of the industry is established capital at 6 per cent. may be available in view of the fact that the produce being a necessity of life will always be considered as easily disposable market goods.

73. Does not arise.

74. Please refer to replies given to questions 60 and 72.

75. The cost at present for the manufacture of one gross of matches of half size comes to about Re. 1 to Re. 1-2.

76 and 77. We have not kept a system of cost accounts.

78. We are not in a position to give.

79 and 80. Income-tax allows 10 per cent. as depreciation but as the machinery is very fragile and as the life of machinery is considered to be 5 years, we consider 20 per cent. allowance to be equitable.

81. About Rs. 3,00,000.

82 and 83. It is a private partnership firm and provides all the capital required. The rate of interest is 9 per cent.

84. No separate account has been kept.

85. The value of the finished stock is about 1½ lakhs. The period production and payment is three months.

86. No need of stocking large quantity of oil or fuel. But a large quantity of soft wood and chemical is necessary. The value is about 1½ lakhs.

87 and 88. It is a private partnership firm having a factory at Andheri and a selling shop at Nagdevi Street, Bombay City, and Agents in different parts of India.

89 and 90. The expenses of the Office and of the selling shop come to about Rs. 1,000 to Rs. 1,500. The rate of selling commission to selling agents is anna 1 per gross. Special discount from ½ anna to 1½ anna per gross is given according to the quantity purchased by one dealer at one time; the scale is almost similar to the one adopted by the Swedish Syndicate which is well-known in all the principal markets of India.

91, 92 and 93. Do not concern us.

94. A. Certainly, yes.

B. Yes; for some few years protection is necessary. Full details have been given in the representation submitted by the India Match Manufacturers' Association, Bombay.

C. Yes. Our Representation deals fully with these points and we also refer to the Resolution passed by the Conference of all the Match Manufacturers in India that was held at Calcutta, in December 1926 and also to the resolution which was passed at the Calcutta Session of the Indian Industrial and Commercial Congress in December last.

95. (a) Yes.

(b) Yes.

96. Yes; the chief feature being that the Indian labour can very well adapt itself to working in all its branches and even the villagers and cultivators can find employment during the leisure hours and further more a large quantity of wood in various forests which is of no use for building or fuel purposes could be utilised. And further the cost of match manufacture includes a great proportion of labour costs, i.e., firstly extraction of wood from forests by manual labour, secondly making of veneers by manual labour and the general manufacture in the factory mostly by manual labour. It must also be noted here that it being a necessity of life, everyone contributes towards its purchase, whether rich or poor, and hence this industry should be retained in the country as much as is possible.

97. (a), (b) The duty is Re. 1-8 per gross against imported matches but it is necessary here to mention that while on one hand there is protection from imported matches on the other hand the Swedish Syndicate which is the cheap importer of imported matches is able to thwart this protection to some extent by establishing factories within India and thereby selling cheaper articles made in India, with the object not of establishing this industry permanently in India but with the object of competing with the Indian factories and ultimately once again establishing a monopoly for the imported stuff.

98. The present import duty of Re. 1-8 per gross should be maintained. Anything less than this rate will jeopardise the whole fabric of this industry and once it is pulled down it will never raise its head again and there will not be any chance of its revival. The reasons for the maintenance of this import duty are manifold, the chief amongst them being the industry being in the hands of a strong syndicate out to control the world's output and demand, the raw

materials that are being imported at present in India for the manufacture of matches are sold at the maximum rates, thereby already penalising the Indian concerns for their attempt to compete with the foreign concerns. Unless therefore the industry is established on sound basis no attempt will be made in this country to manufacture chemicals required for the match manufacture and thus Indian concerns are faced not only with the high cost of raw material required for their purpose, but also the suspense whether the Government would come to their aid to protect the industry from utter ruin.

99. There are other two ways by which any undue advantage be not taken by foreign concerns by opening up factories in India; it is already been taken by the Western India Match Company, and the object of such concerns being detrimental to the interests of Indian concerns, an excise duty of annas eight per gross be levied on the produce of foreign concerns. This will put a stop to the mischievous activities of such concerns in dumping their produce against Indian goods. The other form of assistance is facility for transport of finished goods to different parts of India and cheaper rates for soft woods.

Resolution unanimously passed at a Conference of Match Manufacturers in India held in Calcutta, under the presidency of Captain Pataval, President of the Indian Match Manufacturers' Association, on 27th December 1926.

That an excise duty on matches, to the extent of not less than annas 8 per gross, manufactured by factories started with foreign capital as defined below, is indispensable if the Indian Industry is to survive. By *factories started by foreign capital* is meant those that have not three-quarters of their capital and directors Indian.

That a duty on imported matches, splints and veneers be retained and transferred from the schedule of Revenue to that of protective duties.

That the existing import duty on matches, splints and veneers be retained and on the same scale as before.

That proper control be exercised on the imports of foreign matches into Native States by transshipment methods which are likely to result in an evasion of the custom duties by the transshipment right being abused.

That handicaps in the shape of extraordinary duties levied by Native States upon match manufactured in British India should be removed.

That suitable wood which exists in abundance in Indian Forests and which is the chief raw material in the manufacture of matches must be made available to the match manufacturers by the Government taking up research work in all seriousness and affording every facility for its transport by cheap railway and steamer freight.

Resolution No. 8 moved at the Fourth Session of the Indian Industrial and Commercial Congress, held at Calcutta, on 1st and 2 January 1927.

Resolution No. 8.

(a) This Congress is of opinion that the Indian Match Industry fulfils all the conditions laid down in paragraph 97 of the Indian Fiscal Commission and therefore deserves to be protected.

(b) This Congress, therefore, urges that the present rates of import duty on matches, splints and veneers be maintained and that facilities be provided to make suitable indigenous woods easily available and that transport facilities be afforded to the industry.

(c) That this Congress recommends to the Government of India that in order to enable Indian Match Industry to overcome its technical difficulties and to be developed, legislation be undertaken by them to the effect that all trusts of foreign capitalists establishing factories in India, should pay an excise on their products, the amount of such excise being fixed at a figure, calculated to prevent such trusts from strangling the Indian Match Industry with a view ultimately to monopolising the market.

(d) That it be also enacted that the inclusion of a few Indian capitalists in such a trust should not be considered a plea for its exemption from the operation of the above rule, such mixed trusts being entitled only to a reduction in the amount of the excise in proportion to the Indian capital thus employed.

Proposed by Captain J. W. Petavel.

Seconded by Mr. Hoosseinbhoj A. Lalljee, M.L.C., and Mr. R. H. Gandhi.

The Thana Match Works, Thana, Bombay Presidency.

Letter, dated the 2nd April 1927.

We beg to enclose herewith our answer in connection with the Match Industry questionnaire.

1. The firm has been established in July 1926 and is unregistered.
2. Ours is a proprietary concern and the capital is held 90 per cent. by an Indian and 10 per cent. by a Japanese.
3. We undertake the whole process of manufacturing matches.
4. During September 1926.
5. Gross 800 to 1,000 per day.
6. Half size.
7. Factory was not in existence then.
8. At Thana near Bombay. Yes.
 - (a) Within 20 miles from Bombay.
 - (b) Yes.
 - (c) Yes, round about Bombay.
9. (a) We do not agree. Except splints only some of trademarks are approved of by the Indian Public since last so many years and consequently people insist upon having them. In some parts of India, such as Kathiawar, Verawal, and Porbander, etc., where the foreign goods are sent on transshipments while the goods of foreign origin on which the actual duty has been paid in British India, on goods made in British India are subject to a duty of 50 per cent. so that the buyers have to perforce purchase transhipped Matches of foreign makes.
 - (b) No.
 - (c) Cannot say definitely, but presume that 3 pies per box are a necessary move for banishing this prejudice.
10. (a) Yes.
 - (b) Yes, but at present Indian wood is utilised.
 - (c) No. We purchase cases from Bombay market.
 1. Not available.
 2. Kobe and Poland.
 3. 50 per cent. of the value is freight, insurance.
 4. Rs. 3 per ton.
 5. Rs. 11 per ton.
 6. 15 per cent. on the value of invoice.
11. (a) and (b) Sawar, Mangoe and Gugal.
 - (c) We purchase cases from Bombay and sometimes planks from the Continent.
12. (a) We generally use Sawar, Mangoe and Gugal but these cannot stand in competition with Foreign wood splints. Of course, there is competing wood in some part of India, but the railway freight is very much higher than what we pay on Foreign wood. If the Railway Authorities will give us concession we can manufacture splints in India. There being general tendency of custo-

mers that the splints should be as far as possible white and clean, they naturally dislike the appearance of the splints manufactured from Indian wood.

(b) Yes.

(c) Yes.

13. 1,500 tons for veneers and splints.

14. 900 lbs. of wood for 100 gross.

15. 2" x 8½" length, 2" x 4" breadth and 2" x 4½" height. Ninety-five running feet of planks are required per case of 100 gross.

16. Within 15 miles.

17. By Bullock carts.

18. Nil.

19. Not available.

20. Nil.

21. The supply of wood is not constant in quality as the wood growing in plains is more suitable than that growing in hills.

22. We find that the supplies of wood, as time goes on, are very scarce from near by.

23. We purchase from local merchants, rate from Rs. 35 to Rs. 40 per ton of 50 c. ft.

24. Up till now we are getting sufficient supplies but with regard to planting of trees, this question rests with the Forest Authorities.

25. We get concession on foreign wood but on Indian Wood we are not having a favourable freight from Railway Authorities.

26. Paper, Chemicals and Paraffin wax are required as under :—

 Paper, about 40 tons. Chemicals, 40 tons and Paraffin, 12 tons.

27.

28.

29. If necessary facilities are offered there is nothing impossible.

30. No. It depends upon circumstances, but not so difficult.

31. To very little extent.

32. One.

33. Not much particularly but composition is improved. Indian labourers are given every facility to learn the industry.

34. Total strength is 400, out of this number 130 being women. Rate for female annas 10 per day and made from Re. 1 to Re. 1-12 per day.

35. From vicinity of the factory.

36. Yes.

37. Some quarters are provided and other welfares are well in hand at present.

38. Oil engines.

39. Nil.

40. We are using crude oil and the same is available in sufficient quantities.

41. Five gallons per day of 10 hours.

42. From Bombay, rate per ton Rs. 85 ex-factory.

43. We are not interested.

Regarding electric power we had intention of using electric power but Andhra Valley Power Company being near to us, they quoted us a very high rate.

44. Not available.

45. Yes, decidedly.

46. Almost all parts of India, say, about 100 to 300 miles away from factory.

47. None. Most of them are captured by foreigners.
48. Cannot say definitely.
49. Sweden and their Indian factories.
50. As far as present duty is concerned foreign matches cannot compete with Indian matches but still then this duty cannot be removed, but on the contrary it should be increased until Indian Market is flooded with Indian Matches only.
- 51 to 53. Not available.
54. Almost all points from A to I.
55. Cannot say definitely.
56. Not exactly.
57. Say, about 50 per cent.
58. Our machinery is Japanese, is suitable for Indian labour.
- 59.
60. (a) and (b) Yes.
61. None of them.
- 62 to 74. Not available at present.
- 75 to 80. Regret we are not in a position to furnish you with any information in this respect at present.
81. Rs. 50,000.
- (i) Rs. 1,00,000.
82. Not applicable.
83. Nil.
84. Working Capital Rs. 50,000.
85. Average of stock finished is per month Rs. 29,000 to Rs. 30,000 and money is recovered after a month of delivery.
86. Yes, wood especially.
87. No Head Office.
88. Agents' Commission is half anna per gross.
89. After transaction is completed.
96. Yes, in abundance.
- 91 to 93. We are not interested.
94. Yes. (a), (b) and (c).
95. Yes. (a) and (b).
96. Yes, in abundance.
97. In fact nothing, comparing the high prices we have got to pay for chemicals which concerns are controlled by Swedish people.
- 98 and 99 and 94 to 97. These points have already been embodied in the representation, dated 22nd December 1926 addressed to the Secretary, The Tariff Board (Match Industry Inquiry), Calcutta, by the President of the Indian Match Manufacturing Association. (*Vide* concluding paragraphs 1 to 6, page Nos. 15 and 16.)

The National Match Works, Chatkopar, Bombay.

Letter, dated 3rd April 1927.

As desired by your honour in your letter, dated the 7th March 1927, we bes to submit herewith 7 copies of answers from us to the questionnaire sent to us. We hope you will find the same in required form and order.

Replies to questionnaire.

- The factory was started in April 1923. It is a private concern.
2. The capital and management all Indian. No Europeans employed.

3. Everything is manufactured in our factory.
4. The factory commenced working from 1st January 1925.
5. 700 (seven hundred) gross.
6. Half size sticks 55—65.
7. 1923—67,500 gross. 1924—50,000 gross. 1925—72,500 gross. 1926—132,500 gross.
8. Ghatkopar, Great Indian Peninsula Railway.
 - (a) Yes.
 - (b) Yes.
 - (c) Yes.
 - (d) Ample labour available.
- Market, Railway, Seaport and Wood.
9. (a) Not inferior.
- (b) No such feeling prevails.
- (c) Only two pies per box.
10. For splints only.
- From Japan.
 - (1) Sen 13-50 per Sai f.o.b.
 - (2) From Kobe.
 - (3) Freight 17 Yen per ton.
- Insurance 45 cent. per 100 Yen.
10. (4) Rs. 2-10-0 per ton.
- (5) Rs. 7-0-0 per ton.
- (6) 15 per cent. duty.
11. (a) Savar (*Bombax Malabaricum*).
- (b) Savar (*Bombax Malabaricum*), Mango, Googar (*Boswellia Serata*).
- (c) Old planks of Deodar.
12. Indian woods equally satisfied the demand except in splints only, but the silver fir wood can satisfy in all respects.
13. (a) 255 tons.
- (b) 357 tons.
14. 9 cubic feet.
15. Cases made up for 100 gross as well as for 50 gross, sizes as under:—

100 gross—30½" × 29" × 34½".

50 gross—32" × 23½" × 21½".
- Old planks utilized in making cases.
16. From Japan as well as Thana Forest, Bassein, Daman, Janjira, Chhota Udeipur, from places varying from 12 miles to 400 miles.
17. Through contractors.
18. No direct dealings.
19. No direct dealings.
20. No concession.
21. Not sufficient nor current throughout the year. After lapse of some time, worms get into certain kinds of wood.
22. Cannot get sufficient through the year at near places.
 - (a) and (b) Foreign factory at Ambernath procures all possible wood from near forests as well as from big contractors and pays heavy rates for the wood with a view to starve Indian factories.
23. From Ratnagiri and Janjira and Chhota Udeipur. In 1925 we had to import 25 tons from Ratnagiri and 25 tons from Janjira. In 1926 we had to import 20 tons from Chhota Udeipur, Janjira 30 tons, and Belapur 15 tons. All delivery at factory and costing at Rs. 15 per ton more.

24. No.

25. Railway give concession by charging matchwood as "Fuel." But Kashmir produces very nice and useful matchwood which can very well compete with foreign wood, but the distance being a very great one, the Railway freight becomes prohibitive, and consequently we are not able to try it. If Government can see their way to get us wood from Kashmir districts and Punjab at reasonable prices it will be a helping hand to the match industry. The distance between Japan and Bombay is about 7,000 miles and the wood from there pays only Rs. 20 to Rs. 22 per ton as freight. If Government can make the superior matchwood produced in Punjab and other forests, to be imported in this province at comparatively low freight then the Government can be assured of the best sale of their forest woods and the industry will receive the necessary encouragement also.

26.

Chemicals.

	1925.	1926.
	Lbs.	Lbs.
Potash of Chlorate	10,150	18,550
Sulphur	906	1,656
Manganese Dioxide	1,315	2,400
Potash Bi-Chromate	453	828
Iron Oxide	1,269	2,319
Kissel	860	1,575
Glass Powder	860	1,575
Amorphous Phosphorus	500	915
Sulphide of Antimony	600	1,100
Zinc Oxide	225	415
Chalk	45	83
Glue	2,175	4,000
Papers—		
Green	3,625	6,625
Blue	5,500	10,000
Brown	2,175	3,975
Farina	896	1,680
Paraffin Wax	8,700	15,900
Turpentine paper . . . . .	.....	.....
Zinc Sheets . . . . .	.....	1 ton.
Nails	5 cwt.	8 cwt.
Labels	1,59,50,000	2,91,50,000

27.

	Lbs. oz.
Potash Chlorate	14 0
Sulphur	1 4
Manganese Dioxide	1 13
Potash Bi-Chromate	0 10
Iron Oxide	1 12
Kissel	1 3
Glass Powder	1 3
Amorphous Phosphorus	0 11
Sulphide of Antimony	0 13
Zinc Oxide	0 5

	lbs. oz.
Papers—	
Green	5 0
Blue	8 0
Brown	3 0
Farina	1 4
Paraffin Wax	12 0
Zinc Sheet	6 0
Nails	0 8
Labels	22,000 only.
Chalk	0 1
Glue	3 0

28. (a) All are imported from foreign countries except labels and Paraffin Wax.

(b) Labels only.

(c) Nil.

Chemicals.	1 Country of origin.	2 F. O. B Price.	3 Port of Ship- ment.	4 Freight Insur- ance.	5 Landing charges.	6 Trans- port to Factory charges.	7 Custom duty.
Potash Chlorate		Germany. Buy from Bombay Market.					
Sulphur	Japan	Yen 10 50	Kobe	F 3 95 per cost.	12 ans. per cask	½ per cask	Free
Manganese Dioxide	"	6 50	"	8 00 per cask	"	"	15%
Potash Bi-Chromate		Buy from Bombay Market.					
Iron Oxide	Japan	5 00	Kobe	8 00	12 ans	½ per cask	15%
Kissel	"	3 30	"	3 95	"	"	15%
Glass Powder	"	3 60	"	3 95	"	"	15%
Amorphous Phosphorus	Ger- many	£175 Yen	Gothen- berg.	...	"	Rs. 3 per cask	15%
Sulphide of Antimony	Japan	44 00	Kobe	2 00	9 ans.	Re. 1	15%
Zinc Oxide		Buy from Bombay Market.					
Chalk			"	"	"	"	
Paraffin Wax			"	"	"	"	
Turpentine Paper			"	"	"	"	
Zinc Sheets			"	"	"	"	
Nails			"	"	"	"	

(b) (2) There is no market price for labels but only printing charges.

(c) (3) Nil.

29. Manganese Dioxide.

Iron Oxide, Paper, Glue.

Manganese Dioxide and Iron Oxide are being manufactured and tried on the Calcutta side.

Paper.—There are factories to manufacture paper. But they are not so developed as to meet the demands of match industry. But in future the match qualities of paper may be taken up and manufactured in India.

Glue.—Ahmedabad is trying it and if the manufacturer receive helping hands, he will improve the quality and may be able to compete.

Labour.

30. No.
31. None.
32. No outsider.
33. We have all Indian trained men and non-trained are being trained at the same time.
34. Total 150 persons. 75 women, 60 men and 15 boys.
35. All hands living round about factory.
36. Indian labour can be trained; and we have such trained men working in our factory.
37. Our labour resides in houses hired by themselves, as they used to do before being employed with us.
38. Crude oil engine is working.
39. No electric power is used.
40. No steam power is used.
41. No power used. Only 2½ gallons of crude oil.
42. No coal used, crude oil used as fuel is brought from Bombay and is available at Rs. 65 per ton. Transport charges 8 annas per drum of 40 gallons.
43. Waste also used for heating purposes.
44. About two crores of gross matches.
45. See question 47 below.
46. Our markets are principally Gujrat, Kathiawar, Marwar, Rajputana, Karachi and Sindh, and North-Eastern section as well as South-Eastern Section of the Great Indian Peninsula Railway.
47. Gujrat and Kathiawar consume about 20,000 cases per annum. Gujrat alone is a chief market and has no port of its own. But foreign matches find their way from Kathiawar ports such as Jamnagar, Bedi Bunder and Bhavnagar ports. The said matches are sent by transshipment from Bombay, Karachi and other Indian ports. These foreign matches either pay very little duty or escape full duty and are being sold at very low prices compared to prices which should actually be chargeable. A gross of matches purchased at Bombay, say, at 15 annas without duty will be saleable in Gujrat after paying duty and other reasonable charges at Rs. 2-10, whereas the actual price obtaining there is only Rs. 2 or Rs. 2-1. These low prices create serious considerations in the minds of the people.
48. Out of two crores of gross matches consumed in India, it is presumed that 50 per cent. are imported from out of India, Sweden, etc., and out of the balance of 1 crore, nearly 40 lacs of gross of matches are manufactured by Swedish Syndicate, Ambar Nath, with foreign capital, and the remaining 50 lacs only are manufactured by the Indian factories working with *Indian capital*.
49. Swedish manufacture.
50. Compete with both.
51. (1) 1922-26 from 1s. to 1s. 1d. c.i.f.
 (2) Imported foreign sticks, Indian made, 1923, from Rs. 2-1-0 to Rs. 2.
 Imported foreign sticks, Indian made, 1924, from Re. 1-14-0 to Re. 1-11-6.
 Imported foreign wood and Indian made, 1925, from Re. 1-11-6 to Re. 1-11-0.
 Imported foreign wood and Indian made, 1926, from Re. 1-11-0 to Re. 1-5-6.
 If the *Indian veneers* be used the price will be reduced by half an anna per gross.

But if *Indian veneers and sticks* be used the price will be less by 2 anna per gross from the above prices.

52. Volkart Brothers and Forbes, Forbes, Campbell & Co.

53. Refer to reply to question No. 51 above.

54. It is quite plain that Indian manufacturers are at a greater disadvantage than the foreign manufacturers in the items mentioned in this question.

(a) Have to pay heavy cost for plant and machinery as the selling price here includes freight insurance, landing charges, duty and many other sundry charges which later charges are saved to the foreign manufacturers.

(b) We get no such skilled labour as in foreign countries.

(c) Charges incurred in collecting and transporting materials.

(e) Storing charges.

(H) Duty on import is levied on importation of all materials including even machinery, parts thereof, and even raw materials such as wood.

54. (1) Raising capital—as this industry has been started only lately and as it does not receive all the helping hand from Government and as all machinery and even parts thereof and all raw materials including even raw wood are made to pay heavy importation duty and it being not certain how long the protection of import duty on foreign matches will continue. Owing to all these circumstances, the investors feel rather backward to invest their money. They do not see their way clear for investment and rather hesitate. If protection of import duty on matches, viz., Re. 1-8 per gross, is assured for sufficient long time and if duty is cancelled over raw materials, many investors will come forward and make money easy for the factory purposes which will make the business cheaper.

55. (a) Is permanent.

(b) Temporary as men can be trained in course of time.

(H) Permanent or Temporary as Government decides.

(1) Permanent or Temporary according to the encouragement from Government.

56. Our machinery is of ordinary size. A machine to give an output of say, 1,000 gross per day will be found economical.

57. About thirty per cent. spent on plant and machinery.

58. (a) Plant—

One corrugated iron shed.

Three temporary sheds.

One bungalow.

One small chawl of 3 rooms.

Machinery—

1 Levelling machine for splints. Working date April 1923.

2 Emptying machines. Working date April 1923.

2 Frame Filling machines. Working date April 1923.

1 Dipping machine. Working date April 1923.

1 Labelling machine. Working date April 1923.

2 Peeling machines. Working date 29th May 1925.

- 1 Scoring machine. Working date 29th May 1925.
- 1 Splint chopping machine. Working date 29th May 1925.
- 1 Veneer cutting machine. Working date 29th May 1925.
- 2 Splint cleaning machines. Working date August 1925.
- 1 Sawing machine. Working date 1st January 1927.
- 1 Oil Engine. Working date 29th May 1925.

All the above Japan make, except sawing machine which is of Indian make and the oil engine being of British make.

- 58. (B) No private arrangement.
- 59. (A) Not fully up-to-date.
- 59. (B) Box making done by manual labour.

Hand made will cost about Rs. 13-2 per 100 gross when machine made will cost only Rs. 1-8 to Rs. 1-10 per 100 gross.

60. Do intend making additions and alterations as well as extending the machinery but there being no assurance as to whether how long the protection of import duty now in existence will continue. And secondly as we have to face the efforts of the Swedish Syndicate of Ambarnath and Calcutta who are reported to be always on the alert to cause the breakdown of Indian Match Industry and who are always trying to secure the world industry and if Government does not interfere in the matter, we as well as many other capitalists hesitate to invest further sums in this industry.

- 61. Many parts of our machinery are such as can be made in Bombay.
- 62. (a) Nil.
- (b) Nil.
- (c) Rs. 4,000.
- (d) Rs. 12,800.
- (e) Nil.

63. The above figures shown are less deterioration to the extent of only 10 per cent.

- 64.
- 65. (a) Rs. 3,000.

(b) The plant and machinery as ours will cost at least to a new man about Rs. 20,000.

- 66. Machinery Yen and the same at $\left\{ \begin{array}{l} 2,992 \text{ Yen at 116.} \\ 565 \text{ " " 125 Oil engine Rs. 6,200} \\ 2,200 \text{ " " 112.} \end{array} \right.$ (*Bought locally*).

- 67. Ours is a private concern.
- 68. Private concern.
- 69. Private concern.
- 70. Private concern.
- 71. Private concern.
- 72. Nil.
- 73. No Reserve Fund.

74. One lakh. Provided we are assured of the guarantee and protection asked for in reply to question in 60.

- 75. Forms filled and attached.
- 76. See reply to above question.

77. Nil.

78. No.

79. Six per cent. This rate is too low. Should be at least 20 per cent.

80. Very little time has passed since we started our factory.

81. According to present output about Rs. 30,000. According to present full capacity about Rs. 45,000.

82. At times we do take loans, about Rs. 5,000.

83. At times we do take loans, about Rs. 5,000.

84. Our monthly output about 125 cases and cost thereof at Rs. 115 comes to Rs. 14,000.

85. At times we have to keep a stock of at least one hundred cases and over and at times we cannot keep stock and live from hand to mouth.

The money of sold goods is returned within 15 to 20 days after sale.

86. At times we have to keep a stock of raw materials of about Rs. 5,000 to Rs. 10,000.

87, 88, 89 and 90. No.

91. No shares.

92 and 93. No.

94. Yes.

Wood.—The chief raw material in the manufacture of matches is wood, which is available in abundance in Burma, Cashmere and Indian Forests. If some of the factories have to rely upon imported wood it is because of lack of proper development of Forest resources. Further we believe that if Government make careful research, wood for splints which should invariably be white, would be available in India and it is for the Government of India in the interest of Industry and the Forest Revenue to do their best to find out such white wood and further to arrange for cheap railway freight, as the cost of carriage is the chief factor, but until that is done, the import of logs should not be handicapped. The Indian Manufacturer wants to get rid of foreign wood, but he being not able to do anything in the matter looks up to Government to take up the research work in full seriousness and to arrange for cheap transport and freight charges.

The second condition of Fiscal Commission is that the "Industry must be one which without the help of protection is not likely to develop or is not likely to develop so rapidly as is desired in the interest of the country." We confidently believe in the protection for some years until the foreign capitalists are made to go out of India, because these foreign capitalists are trying all their means to uproot the Indian manufacture and secure the world industry. It is believed that in Japan they tried similar tactics and the Government of Japan seeing that their Match industry was being destroyed, a Bill was introduced in the Japanese Diet prohibiting the imports of foreign capital for Industrial concerns of Japan. Similar steps are recommended for Indian Industries also without which the match and other local industries which are in their infancy will not be able to stand and will die in the bud.

95. (A) Yes.

95. (B) Yes.

96. Yes.

97. (A) Rs. 1-8-0 per gross Customs duty on imported matches.

97. (B) Foreign manufacturers of matches have not to pay any railway freight for bringing their raw materials from far off places to their factories whereas here in India the manufacturers have to find out the wood suitable for their industry and after that pay heavy railway freight for carriage thereof.

98 and 99. (1) The present customs duty must continue.

(2) Further cheap railway freight should be arranged from Cashmere, Punjab and other places.

(3) Foreign capital should not be allowed to be imported for match industry and other local industries.

(4) No unfair competition and no steps as are said to be adopted by Svenska Trust controlled by large capitalists of Swedish Syndicate should be allowed. Their aim is to control the match production of the world and to sell their own made matches at a heavy profit where there is no competition. They tried and succeeded in driving even Japanese competition from India by dumping sales with a result that they were able to starve a number of Japanese factories which had eventually to submit to the Trust and thus they eliminated Japanese competition. The Indian Industry is only in its infancy and strongly requires leading strings and great help in every respect from the Government. If the Government overlooks, then Foreigners will surely dump the industry so that it will never be able to rise again, and foreigners will profit thereby. We earnestly warn Government against this foreign danger and request them to either take such steps as Japan did under similar circumstances, or to charge at least As. 8 per gross excise duty on matches manufactured in India with foreign capital.

FORM No. 1.

Question No. 75.

Details of work cost of the last four years.

	1922-23.	1923-24.	1924-25	1925-26.
	Es.	Rs.	Rs.	Rs.
1. Cost of wood for splints and veneers	29,000	42,400
2. Cost of paper	6,887	11,925
3. Cost of chemicals	7,068	11,925
4. Cost of other raw materials	226	420
5. Factory labour	36,250	50,350
6. Power and fuel	181	331
7. Ordinary running charges for repairs, etc., of plant, machinery, building, etc.	4,350	5,300
8. General work, supervision and charges for local office.	7,612	9,275
9. Sundry charges such as Municipal tax, rent, etc.	11,600	13,250
10. Cost of packing cases	4,712	7,287
Total	1,07,886	1,52,463
Quantity of output of matches during each year. Cases.	725	1,325

FORM No. 2.

Question No. 75.

Cost of one Gross of Matches.

	1922-23.	1923-24.	1924-25.	1925-26.
	Rs	Rs.	Rs. A.	Rs. A.
1. Cost of wood for splints and veneers	40 0	32 0
2. Cost of paper for labels and wrappers	9 8	9 0
3. Cost of Chemicals	9 12	9 0
4. Cost of other raw materials	0 5	0 5
5. Factory labour	50 0	38 0
6. Power and fuel	0 4	0 4
7. Running charges for machinery, plant, etc.	6 0	4 0
8. General work, supervision and charges for local office.	10 8	7 0
9. Miscellaneous charges, e.g., rent, muni- cipal taxes, Insurance, etc.	16 0	10 0
10. Packing cases charges	6 8	5 8
Total	148 13	115 1
Credit for materials
Nett Total
Quantity of output of matches for every year. Cases.	725	1,325

The Borivli Match Manufacturing Company, Bombay.

Letter dated the 7th April 1927.

With reference to your letter No. 209, dated 7th March, I have the honour to enclose herewith 10 copies of the report of our factory and shall thank you to kindly acknowledge receipt of the same.

Replies to questionnaire.

1. Borivli Match Company was established in the month of October 1925. It is unregistered.
2. Being a Japanese concern, capital and management Japanese.
3. Manufacture everything.
4. On beginning.
5. We manufacture now 1,300 gross daily.
6. $\frac{1}{4}$ inch size average in 50 to 60.
7. About 1,800 cases of 100 gross in the year 1925 to 16
8. Borivli.
 - (A) No.
 - (B) No.
 - (C) Yes.
 - (D) Yes. All the above.
9. (A) No.
 - (B) No.
 - (C) 11 to 13 annas per gross less than the price of imported matches.
 - (A) Yes, for splint imported from Japan.
 - (B) No.
 - (C) No. Rate for splint logs as under :—
 - (1)
 - (2) Rs. 29 per 100 sai c.i.f. Bombay.
 - (3)
 - (4) Rs. 1-8 per 100 sai.
 - (5) Rs. 2 per 100 sai.
11. (A) No Indian wood is used.
 - (B) Sawal, Googar, Mango, etc.
 - (C) Cases are prepared from second-hand planks.
12. (A) No Indian wood is used because no soft *white* wood obtainable.
 - (B) Yes.
 - (C) Yes.
13. (A) Splint wood for 3,900 cases is 195,000 sai (Japan). Veneer wood for 3,900 cases is 156,000 sai (Japan).
 - (B) As we are working at full capacity the above quantity is sufficient.
14. About three Bengal maunds per 100 gross of case.
15. Size of 50 gross.
Size of 100 gross.
16. Wood for veneers is imported from India nearly 400 to 600 miles from Bombay.
 17. By contractor and transported by rail.
 18. We do not know it.
 19. (1) We do not know.
 - (2) We do not know.
 - (3) Freight to factory from Chotta Udepur to Borivli of full wagon is Rs. 99 which comes to about 6 tons of wood.
20. We have no concession.
21. Not constant because no proper care is taken.
22. Quantity is not constant and we have to import from the longer distances.
 - (A) Owing to increased output.
 - (B) Because used by other match factories also.

23. Please refer to paragraph No. 13 (A) (for wood) area for mile as in paragraph No. 16.

24. A sufficient supply is assured if cheaper freight is charged.

25. Logs accepted by the Railway Company as the freight of fuel but special concession is necessary.

26 to 29. No other raw material except wood is being used.

30. Sufficient unskilled labour except in the monsoon when the labourers go away to till their lands.

31. Skilled labour from abroad is necessary only to a slight extent, e.g., for mixing chemicals.

32. 2 employers imported labourers and their salary is Rs. 350 per month.

33. Indian and Japanese labour work together, skilled Indian labourers being taught every process.

34. Indian workmen are 537 including men and women.

The average rate of wages comes to Rs. 15 to Rs. 75 per month.

35. Vicinity of the factory.

36. Yes.

Before making nearly 300 boxes per day but after training them they are making nearly 1,200 boxes per day by hand.

Before filling nearly 600 boxes per day but after training them they are filling nearly 1,400 boxes per day by hand.

37. No.

38. Oil engine is used.

39. No electric power.

40. No steam power.

41. 1 ton of crude oil per month and 40 gallons kerosene oil per month.

42. Crude oil bought from Bombay at Rs. 75 per ton f.o.r. and kerosene oil bought from Borivli at s. 3-4-6 per tin or 4 gallons.

43. No wood fuel is used.

44. Not possible for us to give any estimate.

45. Cannot give opinion.

46. All over the Great Indian Peninsula and Bombay, Baroda and Central India Railway.

47. Except the Bombay market we can compete with the upcountry market.

48. (A) Imported matches generally sold are different in parts only.

(B) An illicit importation is supposed to be carried on because such matches imported *via* Kathiawar and other state ports are sold cheaper in Bombay than those imported direct into Bombay.

49. Sweden Czechoslovakia and to some extent Japan.

50. Imported matches do compete with Indian matches either of indigenous woods or imported woods for several reasons.

51. (1) The present prices of imported matches are from Rs. 1-15 to Rs. 2-2 per gross.

(2) Our prices for matches made of Indian wood are Rs. 1-3 per gross.

(3) And for imported wood Rs. 1-5 per gross.

52. From bazar.

53. We believe that foreign producers export at a loss, otherwise they cannot sell their matches at Rs. 1-15 to Rs. 2-2 per gross in which is included duty of Rs. 1-8 per gross, if they import through Kathiawar ports even then they must be losing.

54. (A) Yes.

(B) Yes.

(C) Not necessary.

- (D) Yes.
 (E) Not necessary.
 (F) Yes.
 (G) Not necessary.
 (H) Yes.
 (I) Yes.
55. Except the first point, *e.g.*, cost of planks and machinery which must be imported other items can be obtained or employed locally.
56. Ours sufficiently large economically.
57. As ours is a concern books are unprepared we do not set aside any sum for depreciation.
58. (A) The descriptions of plant and machines are as under,
 (B) No special arrangement.
59. (A) Yes.
 (B) Boxes are hand-made. Sticks are machine-made. Box filling is hand-made.
60. (A) No.
 (B) No.
61. None.
- 62 to 64. As ours is a new concern books are unprepared and we do not set aside any sum for depreciation.
65. Ours being a new concern there is no change of estimate.
66. Rs. 135½ to 136 per 100 now.
- 67 to 74. Ours being a private company no answers are possible.
75.
 76. Being a new concern we cannot give any answer.
 77. No cost sheets are ready.
 78. No.
 79 to 80. Being a new concern nothing has been settled.
81. Rs. 1,00,000 for full capacity output.
82. Sometimes we have to borrow from outside.
83. Rs. 50,000 at 12 per cent. per annum.
84. Not prepared.
85. Stock worth Rs. 9,000—about a month passes before amount is realised.
86. Nearly 2 to 3 months' stock of wood is necessary the value of which is about Rs. 30,000.
87. No head office, no managing agent.
88. None.
 Rs. 5 per case.
89. Deducting the commission as soon as they are selling.
90. None.
- 91-93. No reply can be given.
94. (A) Yes.
 (B) The industry cannot develop unless it is protected against severe competition of imported goods.
 (C) If necessary protection is given for some time the industry will eventually be able to face world competition without protection.
95. (A) We claim that the match industry is such that last scale production can be made.
 (B) That home production will easily supply the need of the country.
96. The labour being cheap raw materials can be easily obtained if special rates of freight are charged and as there is a heavy incontinuous demand for matches this industry can prosper easily.

97. (A) The existing custom duty is not quite sufficient to protect the industry.

(B) Same case as A.

98. Our opinion is that the present import duty of Rs. 1-8 should be either increased or maintained.

99. Transport facilities should be given and cheaper rates for soft woods should be charged. Government should encourage to manufacture chemicals necessary for the industry. Government also should protect the industry against dumping in the market of matches manufactured by foreign concerns with foreign capital. The Government should advance money to the Indian concerns with Indian capital at a cheaper rate of interest than ordinarily obtainable in the market.

Regarding Forms 1 and 11 we beg to inform you that we opened our factory nearly 17 to 18 months ago and we have not prepared our account book as yet but approximately expenses on one case of 100 gross of first class matches are Rs. 115 for which we have not calculated, so that we have not filled up and sent to you, please note.

The Swadeshi Match Manufacturing Company, Bombay.

Letter, dated 19th April 1927.

With reference to your circular of the 7th March enclosing questionnaire for the protection of Match Industry, we beg to send you herewith six copies of our reply and trust same will be found in order.

Replies to questionnaire.

INTRODUCTORY.

1. This firm was established in May 1923 and was purchased by us on the 4th of June 1926. It is a private Partnership Company, unregistered.
2. The capital is entirely Indian.
3. We undertake the whole process of manufacture.
4. On the 4th June 1926.
5. About 18 cases, each of 100 gross.
6. Half size boxes containing each about 60 splints.
7. Monthly average of 110 cases each of 100 gross during the last 10 months.
8. At Ghatkoper in the Ghatkoper-Kirol Industrial area.
(a), (b), (c), (d) Normal. Where there will be cheap and enough labour and wood.
9. They are so to some extent but are due to hand-manufacturing.
(b) No.
(c) About 4 annas.

Rare Materials.

Wood.

10. Yes; for splints or veneers to some extent, both for about half of the year.

From Japan:—

Flakings—

1	.	.	.	.	16½ Yen per hundred sai.
2	.	.	.	.	Any port in Japan (aspen logs from Sweden).
3	.	.	.	.	49 per cent.
4	.	.	.	.	Annas 12.
5	.	.	.	.	Re. 1 per piece.
6	.	.	.	.	15 per cent.

11. Sawar or Simal, Googal, Mango, Kakad, Mohini.
12. Soft and white is satisfactory.
15. 32" x 28" x 29" locally purchased. 100 gross capacity.
16. Panchmahal District, Gujerat, and Ratnagiri District.
17. By railway and cart.
18. Purchase from contractors.
19. (3) Rs. 15 from Panchmahal.
- (4) Rs. 5 per ton.
21. Normal supply for six months (monsoon excepted).
22. Normal supply for six months (monsoon excepted).
24. Assumed by contractors except during monsoon. But factory should have foreign logs on which no duty should be increased.
25. No adequate concession from the railways and the freight rates have been the worst disadvantage in the way of cheap supplies of wood.

Other raw materials.

26. Match chemicals, box papers, etc.
27. Chemicals alone come to Rs. 13-8-0 per case of 100 gross.
28. Imported goods obtained locally from Agents.

Labour.

30. No difficulty.
31. Not necessary.
32. We do not employ.
33. No imported labour employed; all manufacture by Indians.
34. At present about 300 workmen in the factory and about the same number of home workers.
35. From the vicinity.
36. Indian labour is satisfactory.
37. They have got their own houses in the neighbouring villages.

Power.

38. Oil engine.
39. Electric power not available.
40. No steam power.
41. Rs. 200 per month for fuel oil.
43. Our fuel is not wood.

Market.

45. Yes, but slowly.
46. Demand from all parts of India.
47. Yes, in Central Provinces and in the Punjab.
48. (a) To a greater extent than matches made by Indian factories with Indian capital.
- (b) We hear so.

Competition.

49. Sweden and Japan.
50. With the existing duty the competition cannot be success.
52. From Imports Agents.
53. In our opinion foreign concerns with factories established in India undersell their matches made outside India, in order to corner the trade.
54. Yes.
- (a) Yes.

(b) No.

(c) No.

(d) Yes.

(e) Yes.

(f) Yes.

(g) Yes.

(h) Yes.

(i) No, if the industry is protected.

55. Temporary if Government will help (h), (i), (f) and (d). If unprotected by Government will be permanent (a), (c) and (g).

56. Yes.

57. About 60 per cent. (including building and plant).

58. Japanese and German: 2 Inner, 2 Outer, 9 Framing, 3 Emptying and peeling machines.

(b) No special arrangements.

(c) Consider it sufficient with the existing duty.

59. (b) Box-making and box-filling (with tipped splints chiefly).

60. Yes, when duty is declared protective.

61. We get few parts which could be made here.

Capital account.

62. Total amount of Rs. 90,000 is invested in our factory.

63. Actual amount of our purchase was about Rs. 50,000 for the plant land, building and machinery.

65. (a) Rs. 50,000.

(b) Rs. 50,000 opening would be smaller if new machines are fixed.

67. Private company.

74. Rs. 25,000 for all purposes.

Works cost.

76. Yes.

(5), (6), (7), (8), (9) Will be greatly reduced.

77. No.

78. No.

Overhead Charges.

(i) Depreciation.

79. 10 per cent.

(ii) Working capital.

81. About Rs. 30,000.

(i) Rs. 50,000.

(ii) Excluding ready stocks.

82. Necessary to borrow.

84. 9 to 12 per cent. per annum.

85. About 100 cases valued at Rs. 12,000.

86. Yes, of raw materials and stores.

Manufacturers' profits.

91, 92, 93. Private company.

Claim for protection.

94. Yes.

(a) Yes.

(b) Yes.

(c) Yes. Representation in this respect made by the President of the Indian Match Manufacturers' Association, with details.

95. (a) Yes.

(b) Yes.

96. Yes.

97. (a) Re. 1-8 duty.

98. Excise duty as high as possible on the output of the Factories wholly or mainly with foreign capital and present Customs duty should be maintained and declared protective.

99. Mr. Huseinbhai Lalljee's remarks on the representation of the Indian Match Manufacturers' Association, on pages 15, 1, 2, 3, 4, 5 and 6.

The Swedish Match Company.

Letter, dated 8th April 1927.

As indicated on previous occasions we have no case to state, and the object of the present is only to give you our experience in India. We have not been in a position to answer all your questions, but trust that you will have sufficient material coming forward on such points from other sources to complete your records.

The undersigned desires to be heard in camera and for that reason our reply to the questionnaire should be looked upon as confidential and as not being meant for publication.

Replies to questionnaire.

INTRODUCTORY.

1. The Western India Match Company, Limited . 7th September 1923.
- The Burma Match Company, Limited . . . 8th May 1925.
- The Mandalay Match Company, Limited . . 27th July 1925.
- The Assam Match Company, Limited . . . 15th October 1925.
- The Kemmendine Match Company, Limited . 23rd February 1925.
- The Match Manufacturing Supply Company, Limited. 21st August 1924.

All are private registered Companies except the Assam Match Company, Limited, which is a public registered Company.

2. In the Assam Match Company, Limited, 2 lakhs of the total capital of 5 lakhs, and the Burma Match Company, Limited, 1 lakh of a total of 7,31,500 are held by Indians. The balance in these two Companies, except 10,000 in the Burma Match Company, Limited, and all the shares in the other Companies are being held by the Swedish Match Company. The total number of Directors and the number of Europeans employed are given below:—

	Total Directors.	Indian Directors.	European Employed.
Western India Match Company, Limited .	2	...	21
Burma Match Company, Limited . . .	7	1	3
Mandalay Match Company, Limited . . .	4	...	...
Assam Match Company, Limited	7	3	4

We are here leaving out the Kemmendine Match Company, Limited, and the Match Manufacturing Supply Company, Limited, as they are not manufacturing concerns. Apart from a Factory Manager, one or two Accountants depending on the size of the factory, all the Epropeans are machinery experts and are required for the fitting and repairs of the machinery, training of labour and general supervision of the manufacturing.

3. The whole process of manufacture.

4. Please find the dates below as follows:—

Western India Match Company, Limited,	July 1924.
Ambernath.	
Western India Match Company, Limited,	September 1924.
Calcutta.	
Western India Match Company, Limited,	September 1926.
Parel.	
Assam Match Company, Limited	July 1926.
Burma Match Company, Limited	August 1925.
Mandalay Match Company, Limited	October 1925.

The last two were, however, bought by us as old match factories, and the Burma Match Company first commenced operations in 1910, and the Mandalay Match Company in 1914.

5. The approximate capacity of the different factories are as follows:—

Western India Match Company, Limited,	8,500 gross.
Ambernath.	
Western India Match Company, Limited,	5,000 „
Calcutta.	
Western India Match Company, Limited,	750 „
Parel.	
Assam Match Company, Limited	1,250 „
Burma Match Company, Limited	1,250 „
Mandalay Match Company, Limited	750 „

TOTAL . 17,500 gross per day.

In that connection it must be noted that the Mandalay and Parel factories have closed down.

6. Dimensions of boxes and number of sticks are as follows:—

A. 1/2 size	1'53/64" × 1'19/64" × 39/64"	60/65
B. 1/1 „	2'21/64" × 1'15/32" × 23/32"	85/90

7. Output has been as follows:—

1924	231,000
1925	1,324,250
1926	3,302,350

8. Situation of factories is as follows:—

Ambernath, Great Indian Peninsula Railway.
Calcutta, 46/5, Canal East Road, Narkaldanga.
Parel, Bombay.
Dhubri, Assam.
Kanaung, Rangoon.
Mandalay.

It is not possible to obtain a position that is advantageous in every respect. Each site has its own advantages and drawbacks. The considerations (a), (c), and (d) we hold to be equally important factors in selecting a site for a match factory in India.

9. A. Yes, Indian matches are inferior and fall short of the standard of imported matches in nearly every respect. In some factories the difference is small, in others larger.

B. No, on the contrary there is a preference for Indian matches in many markets due to the present low price.

C. The imported matches can easily be classified according to standard of quality. Not so the Indian match, and this makes it impossible to generalise and indicate the price difference. There are almost as many qualities as factories in India. There are first of all the two classes, matches made from Indian wood and same made from imported wood. Heads, friction and other factors deciding the quality are varying largely, not only between different factories but sometimes also in the same factory during the different seasons.

Indian wood differs considerably in appearance not only in different parts of the country but also in the same locality. It is evident that if Indian matches aspire to 100 per cent. of the market the difference in price between them and imported must be higher than what would be required to obtain a lower percentage.

Raw materials.

10. *Wood.*

A. Yes.

B. Yes, in the beginning altogether. Subsequently we have changed over to Indian wood and are now using it except during the Monsoon in Western India when we think it will always be necessary to fall back, to a certain extent, on imported timber.

C. At present we are using Indian case-boards, but imported case-boards of a superior quality and appearance can be obtained at practically the same rates.

Aspen is imported either from Vladivostock or the Baltic to Bombay, Calcutta and Rangoon. The cost at factory is approximately:—

Swedish Rs. 2 5 0 per c. ft.
Siberian Rs. 2 13 0 per c. ft.

F. O. B. price, freight, insurance, etc., landing and clearing charges transport to factory duty. } For specification see Appendix I.

11. A. Species used for splints:—

Burma.	Calcutta.	Assam.	Bombay.
SHAWBYA. (<i>Tetramelis Nudiflora</i>).	GENWA. (<i>Encoccaria Agallocha</i>).	MACHILUS. (<i>Machilus Parviflora</i>).	SALAI. (<i>Boswellia Serata</i>).
MAULETAN. (<i>Sarcocephalus Cordatus</i>).		SIMUL. (<i>Bombax Malabaricum</i>).	

We have not been able to make first class splints from the above species. They have been used for second quality.

B. Species used for veneers:—

Burma.	Calcutta.	Assam.	Bombay.
MAULETAN. (<i>Sarcocephalus Cordatus</i>).	GENWA. (<i>Encoccaria Agallocha</i>).	SIMUL. (<i>Bombax Malabaricum</i>).	SAWAR. (<i>Bombax Malabaricum</i>).
LETAN. (<i>Bombax Malabaricum</i>).		MACHILUS. (<i>Machilus Parviflora</i>).	MANGOE. (<i>Mangifera Indica</i>).
			SHEMUT. (<i>Odina Woodier</i>).

C. We can buy these from saw mills at rates which appear in our specification of raw materials.

12. We have found Indian wood less satisfactory than imported on nearly every point which has a bearing on the suitability of the timber for match manufacturing. It is hardly possible to contain our findings, which are based on experience at all our factories, within the frame of this report. The undersigned shall be pleased to acquaint the Tariff Board personally with all the facts at our disposal during his forthcoming visit to Calcutta.

13. With Indian wood for boxes and imported wood for splints:—

	tons.
‡ size factories	8,000
‡ size factories	5,000

If Indian wood could be used both for splints and boxes:—

	tons.
‡ size factories	16,000
‡ size factories	10,000

With a yearly production of 40,000 cases full size and 50,000 cases half size and with a consumption of Indian wood for—

‡ size 20 c. ft. (10 for veneers and 10 for splints).
‡ size 10 c. ft. (5 for veneers and 5 for splints).

Normally only 65 per cent. more wood should be required for full size, but the average quality of the wood in Calcutta and Burma falls below that of Bombay, and this works out in favour of our ‡ size factory there.

14. Double the above which is calculated per 50 gross.

15. ‡ size 28½" × 21½" × 19½" required 1.45 c. ft. ready sawn boards.

‡ size 36½" × 24½" × 23½" required 2.51 c. ft. ready sawn boards.

Both cases take 50 gross.

16. Please see maps attached.

17. Part of our supplies have been obtained through departmental felling but we have not been very successful in this respect, and the bulk of our requirements is now being supplied through the medium of contractors. The timber is either transported to the factories through a combination of dragging and rafting as in Assam and partly in Burma, or by dragging, carting and rail as in other places.

18. In Assam we first paid a monopoly fee of Rs. 2,062-8 *plus* a royalty of 6 pies per cubic foot. Subsequently we found it advantageous to work without a monopoly and are now paying 6 pies in the area formerly covered by our lease and Rs. 2 per tree outside on an ordinary permit. In Umbra and Khopoli we pay Re. 1 per cart for all species except Mangoe, which is Rs. 4 per cart. 3 carts are required to take 1 ton of timber. In Honawar we pay Rs. 6 per acre for clear felling. We do consider the terms unfavourable, but understand that as far as Western India is concerned more favourable rates have been granted.

19. Our present cost at the factory is:—

	Rs.
Ambernath	45
Calcutta	30
Rangoon	35—40

all per ton of 50 c. ft.

20. We enclose copies of the following concessions:—

Assam Match Company, Limited	Goalpara.
Western India Match Company, Limited	Gersoppa.
Western India Match Company, Limited	Khopoli and Umbra.

21. The impossibility of obtaining an even quality as soon as the timber is required in appreciable quantities can be described as one of our main difficulties with Indian timber. We have discussed this with the Forest Officers on various occasions, and will supply further particulars verbally as indicated under Question 12. This also refers to the question of deterioration which, of course, is unavoidable with all soft wood but the degree of deterioration differs.

22. Necessary to draw supplies from greater and greater sustances.

This is due to reasons given under (a), (b) as well as (c).

(d) Matchwood trees generally occur very scattered which necessitated a large area to be covered in order to obtain quantities.

23. As we receive most of our wood through contractors we cannot supply accurate information regarding quantities extracted from different areas. We only know that supplies are now drawn from more distant areas than before.

24. We are inclined to believe that difficulties will occur in connection with the supply of sufficient quantities of suitable timber. It is difficult to state any time, but even now it is noticeable that timber is being supplied from comparatively distant sources. A forest of softwood is not necessarily a forest for matchwood. On the contrary, we have found repeatedly to our surprise inconvenience and cost that our species are very few and far between. There may be forests which are different in this respect, but on the whole we think official opinion will confirm the above. With regard to plantations, as long as wood can be obtained through contractors, a plantation on private initiative would increase overhead expenses and place the originator less favourably in the present competition.

25. No.

Other raw materials.

26, 27 and 28. Please see Appendix II. We regret very much that for various reasons we cannot state the exact quantity used by us for 100 gross of boxes.

29. The following materials are made in India:—

Paraffin, flour for paste, packing, paper and glue.

The qualities do not, however, satisfy us. We do not expect the other materials to be manufactured in India. Demand is after all limited compared with Europe and the United States where the possibility of mass production is conducive to cheaper rates. Besides, a high and even quality of the chemicals is an absolute necessity for a successful manufacturing, and it is doubtful whether this can be achieved in India.

30. It is difficult in Assam. We further refer to the answers under 12, 21 and 24.

31. For repairs and fitting of the machinery, training of labour and general supervision of the manufacturing.

32. We have altogether seventeen Europeans at our factories in a capacity of technical experts.

33. Otherwise, we are using entirely Indian labour who have all been trained by us, except in Burma, where we took over the labour from the previous owner of the Burma Match Factory. We are now also training Anglo-Indians to take the place of European Fitters, but have so far not been very successful in this respect.

34. *Indian Workmen employed at each Factory:—*

—	Men.	Women.	Children.	Coolies.	Total.
Ambernath	864	337	8	308	1,517
Parel	82	65	23	43	212
Calcutta	526	63	10	91	690
Dhubri	206	5	47	38	296
Burma	161	138	41	33	373
Mandalay . . . . .	...	...	...	3	3
				Total	3,091

Also wages as follows:—

—	Men.		Women.		Children.	Average.
	Rs.	Rs.	Rs.	Rs.		
Ambernath	0·82	to 2·68	0·66	to 1·56	...	1·30
Calcutta	0·95	to 2·02	1·43		...	1·30
Burma	0·70	to 1·48	0·55	to 0·75	0·40	0·85

35. The labour is drawn from all parts of India. As an illustration we give our labour at Calcutta distributed in accordance to the districts from where they hail:—

Bengal	395
Bihar	204
Orissa	43
United Provinces	41
Assam	7
	<hr/>
TOTAL	690
	<hr/>

At Ambernath only about 10 per cent. of the labour comes from the Bombay Presidency.

36. The difference between now and when the labour was first put in training is of course considerable. Whether any further improvement will take place is of course uncertain. It is certain that the improvement of many labourers for technical purposes has its limitations in accordance with their grade of intelligence.

37. We have our workmen's quarters at Ambernath, Kansaung, and to a certain extent Dhubri. In Calcutta the labour live in their own accommodation in the vicinity of the factory. At Ambernath we have built our own shop to keep living expenses down and at Kansaung there is a shop under our supervision. At Ambernath we have built a school for the children of the work-people which is well attended and the teacher is paid by our firm and has also free quarters for himself and his family. We have also provided reading and club-rooms for the people and contributed towards the expenses for purchasing books, etc. Some of our workmen prefer to live in Kalyan and they had in the beginning to walk three to four miles distance mornings and evenings. Since over a year ago, however, the Great Indian Peninsula Railway at our request, kindly arranged the local train service in such a way as to suit the working hours of our factory. We have our own Doctors and Compounders with well appointed dispensaries at Ambernath and Kansaung, whilst at Dhubri and Calcutta we have a contract with an outside Doctor who attends regularly.

38. Electric Power Ambernath and Calcutta.
 Steam Burma and Assam.

39. *Ambernath*.—From 2 annas to 1 anna 6 pies per unit, on a sliding scale, with factory lighting outside normal hours charged at $\frac{3}{4}$ per unit.

Calcutta.—10 pies per unit.

We understand Messrs. Tata supplies electricity to the Cotton Mills in Bombay at a rate of 7 annas per unit. The rate in Sweden is 2 pies per unit.

40. Waste from the peeling machine, but not sufficient at Parel, Assam and Burma, and must be completed by fire-wood, coal, saw-dust, etc.

41. Our cost of power per case is as follows:—

	Rs.
Ambernath	0·72
Calcutta	0·60

including factory lighting, etc.

42. Fuel prices:—

Parel	Rs. 23 per ton coal.
Assam	Re. 0.8 per maund firewood.
Rangoon	Rs. 20 per 100 bags sawdust.

43. Please see reply to No. 40. We have no concession for the supply of fire-wood.

Markets.

44. We estimate about sixteen million gross per annum.
45. With lower prices there should be an increase.
46. We sell all over India.
47. Where our Factories are situated at the ports there is no difference. Our only up-country factory that is working is Assam, and here the advantage of being near the market seems to be counter-balanced by disadvantages, *i.e.*, labour difficulties, inconvenient despatch of raw materials, etc.
48. The more important towns, specially some of the ports are in favour of imported matches. So are Assam, and particularly Burma.

Competition.

49. Sweden, Japan, Czechoslovakia, and with Sulphurs also, Norway.
50. We refer to our reply No. 9-C. With regard to imported and Indian matches, competition only arises in connection with that section of the population who look more or quality than to price.
51. (1) C.i.f. prices for Swedish matches have been as follows:—

	$\frac{1}{2}$ size safeties.	$\frac{1}{2}$ size sulphurs.	$\frac{1}{2}$ size sulphurs and safeties.	$\frac{1}{2}$ size.
	s. d.	s. d.	s. d.	s. d.
1900—1904	1 1	0 10	0 11	...
1905—1914	0 11 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 0	...
1914—1922	*	*	*	...
1923	1 8	1 8	1 10	1 4
1923—1927	1 5 to 1 6	1 5 to 1 6	1 7 to 1 8	1 1 1 2

*During the period of the War and immediately following prices rose with about 25 per cent. first and later to 4s. per gross as the highest point. Shipments were often subject to sur-charge of freight, and extras, in case steamers were compelled to proceed, *via* the Cape. For long periods shipments to India were completely suspended on account of the submarine warfare, and Swedish trade in India was consequently reduced to insignificant proportions to the entire advantage of the Japanese match-trade.

(2)

Ambernath $\frac{1}{4}$ size per gross.	Burma $\frac{1}{4}$ size per case.	Calcutta $\frac{1}{4}$ size.	Mandalay $\frac{1}{4}$ size.	Assam $\frac{1}{4}$ size.	Year.
	Rs.	Rs. A.			
<i>Nit</i>	88	...	...	...	1925
<i>Nit</i>	84	1 12	*	**	1926
		1 10	...	...	end of 1926
<i>Es. 1-2</i>	84	1 8	...	...	1927

*The Mandalay Factory was originally equipped for $\frac{1}{4}$ size with thick sticks by the old owner. There is no demand for this size in Burma, but all the same we manufactured this size in the beginning in order to train our labour pending the arrival of spare parts for full size. We have, however, found it practically impossible to dispose of these matches and are now, after the factory is closed, trying to liquidate the stocks on consignment at bargain rates. On account of the unsatisfactory timber received at Mandalay our full size did also turn out a failure as regards quality and has, for this reason, to be sold below cost of production. After careful investigation we found it impossible to produce matches in Mandalay of such quality whereby the selling price covered the cost of production, and consequently decided to close the factory.

** Assam matches were first sold at a price of Re. 1-6 f.o.r. destination. The timber in Assam produces a rather dark splint, and in order to introduce this quality we have now, about a month ago, reduced the rate to Re. 1-3 f.o.r. destination.

Ambernath $\frac{1}{4}$ size.	Calcutta $\frac{1}{4}$ size.	
Rs. 2 to Rs. 2-3.	Rs. 2-8.	1924.
Rs. 2 to Re. 1-13.	Rs. 2-3.	1925.
Re. 1-6-6 to Re. 1-13.	Rs. 2-3.	1926.
Re. 1-4 to Re. 1-6.	Re. 1-12 to Re. 1-15.	1927.

52. Customs and ourselves.

53. A. No.

B. Yes.

C. Yes.

Our replies refer to Sweden only.

54. A. Yes.

B. Yes.

C. If efficiency is considered, European labour is cheaper.

D. Yes.

E. Yes.

F. Yes.

G. Yes.

H. Yes.

I. Yes.

55. The only disadvantages which cannot be considered as permanent are F, H and I, but we are obviously not in a position to express an opinion on the temporary nature of either,

56. 5,000 gross a day of 10 hours but 7,500 or even 10,000 is better, above that, certain difficulties of control would occur in India.

—	Company.	Total.		Plant and Machinery.		Percentage.
		Rs.	A. P.	Rs.	A. P.	
Wimco	Ambernath . .	20,67,146	4 0	11,37,686	6 0	55.03 per cent.
	Calcutta . . .	8,48,369	3 0	7,75,399	11 0	91.40 „ „
	Parel	84,052	0 0	77,037	0 0	91.65 „ „
Burma . . . .	...	6,59,858	12 0	3,79,935	12 0	57.58 „ „
Mandalay . . .	...	3,19,825	12 0	2,36,563	4 0	73.97 „ „
Assam . . . .	...	4,48,746	9 0	2,91,414	11 0	64.94 „ „

59. A. Yes, except in Burma where we have partly old machinery. Modern machinery with the latest inventions is perhaps of more importance in the Match Industry than anything else for the purpose of obtaining favourable results.

B. Excepting the transport between various processes in our factories, there is only the packeting and to a small extent the box-filling which is being carried out by manual labour. The relative costs of the more important processes which can be made by hand as well as machinery are as follows:—

—	By hand.	By machinery.	Difference in favour of machinery.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Box-making	7 2 0	1 4 0	5 8 0
Box-filling	5 6 0	3 2 0	2 4 0

per case of 50 gross.

60. We intend to make sulphur matches as well if the present duty is declared protective. Other extensions apart from this addition will depend on the possibility of finding a market for our goods.

61. No parts of our machinery are made in India.

CAPITAL ACCOUNT.

Blockvalue of property 31st December 1926.

Company.	Leases and concessions.		Land.		Buildings.		Plant machinery.		Other assets.	
	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.
<i>Western India.</i>										
Ambernath . . . . .	...		1,39,621	14	7,39,457	0	11,37,686	6	44,158	8
Calcutta . . . . .	...		...		48,227	14	7,75,399	11	24,741	10
Parel . . . . .	...		...		6,150	0	77,037	0	865	0
Total . . . . .	...		1,39,621	14	7,93,834	14	19,90,123	1	69,765	2
Burma Match Company, Limited.	...		60,500	0	1,91,500	0	3,79,935	12	27,923	0
Mandalay Match Company, Limited.	...		...		72,424	12	2,36,568	4	10,832	12
Assam Match Company, Limited.	17,250	0	...		1,31,756	10	2,91,414	11	8,507	4
GRAND TOTAL	17,250	0	2,00,121	14	11,89,336	4	28,96,041	12	1,17,028	2

63. The figures represent actual costs. Our Depreciation Fund stands as follows:—

	Rs.	A.
Western India Match Company, Limited	2,26,942	3
Burma Match Company, Limited	26,930	6
Mandalay Match Company, Limited	16,365	4
Assam Match Company, Limited	3,792	8
TOTAL	2,74,030	5

64. Less than what we consider suitable.

65. Apart from the Burma Match Company, Limited, to-day's cost for buildings, plant and machinery would be about the same.

67.

Company.	Authorised Capital.	Issued and paid up Capital.
	Rs.	Rs.
Western India Match Company, Limited	75,00,000	47,00,800
Match Manufacturing Supply Company, Limited	50,000	40,500
Kemmendine Match Company, Limited	3,00,000	91,700
Burma Match Company, Limited	10,00,000	7,31,500
Mandalay Match Company, Limited	3,00,000	2,77,510
Assam Match Company, Limited	7,00,000	5,00,000
Total	98,50,000	63,42,010

74. Impossible to say before the nature of the extension, if any, has been decided upon.

Works cost.

75. We are not in a position to give our works cost but wish to indicate that same are under-going a steady decline which has not yet terminated. On account of the severe competition which exists in the local Match-industry to-day we have been compelled to use every improvement in cost for a corresponding reduction in selling prices in an endeavour to reach a balance between our production and sales and specially to liquidate our stocks which have accumulated on account of our prices being on a higher level than those of our competitors.

Overhead charges.

79. *Depreciation.*—Rates allowed by Income-tax Authorities are:—

	Per cent.
For buildings	2½
For Plant and Machinery	6½
For Others (Furniture and Fittings)	5

Machines do not fare as well in India as in Sweden where the rate is 7½ per cent. Apart from this, however, it has to be considered that on account of inventions and improvements, match machinery may have to be replaced earlier than what would otherwise be the case if only wear and tear was considered. We calculate with a maximum of 10 years in this connection.

With regard to buildings, the Income-tax rate is sufficient provided it is a question of a pucca construction. Buildings which do not belong to this class vary too much to make a comprehensive opinion possible.

80. *Annual Depreciation.*

Company.	Calculated at Income-Tax rates.	
	On original cost.	On depreciated value.
	Rs.	Rs.
Western India Match Company, Limited	1,47,816	1,35,208
Burma Match Company, Limited	29,930	28,432
Mandalay Match Company, Limited	37,137	16,287
Assam Match Company, Limited	21,927	21,750
Total	2,16,810	2,01,677

Working capital.

	Rs.
81. Western India Match Company, Limited	20,00,000
Burma Match Company, Limited	2,25,000
Mandalay Match Company, Limited	2,00,000
Assam Match Company, Limited	1,75,000
TOTAL	26,00,000

82 and 83. The Companies through the Swedish Match Company are able to provide all the working capital they require, but may invite the Indian public to subscribe.

85. A. *Average value of ready matches in stock :—*

	Rs.
Western India Match Company, Limited	14,00,000
Burma Match Company, Limited	1,50,000
Mandalay Match Company, Limited	1,00,000
Assam Match Company, Limited	1,50,000
	18,00,000

B. From two to three months.

86. *Approximate value of three months' supply of raw materials :—*

	Rs.
Western India Match Company, Limited	7,00,000
Burma Match Company, Limited	80,000
Mandalay Match Company, Limited	70,000
Assam Match Company, Limited	50,000
	9,00,000

Agents' commission and Head Office expenses.

87. All Companies direct under the Head Office in Bombay. The expenses in 1926 were Rs. 1,28,698-8-0 which, on our actual deliveries works out at about 10 pies per gross, but if our production for 1926 is taken, the figure is reduced to 7½ pies.

Manufacturer's profits.

91, 92 and 93. It is difficult to say as the investing public in India have burnt their fingers practically every time they have been offered to take part in a match manufacturing concern. There is consequently very little confidence left in the public mind for this industry and unless there is a distinct change for the better maintained through a number of years, we do not think that capital can be obtained in the ordinary way of issuing shares, even if they are "preference." It is of course another matter if a well-known responsible party in the match trade is standing as underwriters as in the case of the Assam Match Company, Limited.

Claim for protection.

94. A. No natural advantage except a large home market. Power is of small consequence in match making.

B. Without protection the industry would very soon return to the same level as before protection commenced.

C. We consider this out of the question.

95. A. Yes, we refer to our reply to question No. 56.

B. No, unless protected to the extent of a prohibitive duty.

Even then, there remains the question whether the supply of local wood is sufficient.

96. No.

98. With the present protection we expect the percentage of imported matches to be very low in a few years' time.

99. No.

APPENDIX I.

Prices of Swedish and Japanese Aspen.

	Ambernath.		Calcutta.	
	Swedish.	Japanese.	Swedish.	Japanese.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Price per ton of 50 cubic feet . . .	58 5	84 4	58 5	84 4
Freight and Insurance	34 8	33 2	36 9	30 5
Landing, Clearing and Siding fees, etc.	6 12	6 12	7 4	7 4
Freight to Ambernath	2 0	2 0	...	...
Duty at 15 per cent.	13 15	17 9	14 4	17 3
Total	115 8	143 11	116 6	139 0

APPENDIX II.

Specification of Raw Materials.

Particulars.	Country of origin.	Price.
		£ s. d.
Amorphous Phosphorous	England	0 1 6.45 per lb. c.i.f.
Antimony Sulphide	Sweden	5 5 0 ,, 100 killos c.i.f.
Bichromate of Potash	Do.	4 13 3 ,, 100 ,, ,,
Chlorate of Potash	Do.	30 8 0 ,, 1000 ,, ,,
Glass Powder	Do.	0 12 9 ,, 100 ,, ,,
Glue	Belgium	6 0 9 ,, 100 ,, ,,
Manganese Dioxide	Sweden	2 7 6 ,, 100 ,, ,,
Paraffin	United States of America	2 11 3 ,, 100 ,, ,,
Red Ochre	Sweden	2 1 6 ,, 100 ,, ,,
Sulphur	Sicily	12 0 0 ,, ton c.i.f.
Umber	Sweden	1 5 1 ,, 100 killos c.i.f.
Tapioca Flour	Java	Fl. 13.15 ,, 136 lbs. ,,
Wheat Meal	United States of America	As. 3 ,, lb. f.o.r.

Particulars.	Country of origin.	Price.
		£ s. d.
Box Paper (dark blue)	Sweden	28 6 0 per 1000 killos c.i.f.
Dozen Packet Paper	Do.	21 2 6 ,, 1000 ,, ,,
Half-gross Packet Paper	Do.	26 7 3 ,, 1000 ,, ,,
Box Labels (half size)	Sweden	0 0 3 ,, 1000 c.i.f.
Dozen Packet Labels	Do.	0 1 0 ,, 1000 ,,
Half-gross Labels	Do.	0 3 0 ,, 1000 ,,
Zino	Belgium	4 10 9 ,, 100 killos c.i.f.
Case Boards ($\frac{1}{2}$ size)	Local	Es. A. P. 3 8 0 ,, case, Bombay.
Case Boards (full size)	Do.	3 13 0 ,, ,, Calcutta.

(2) STANDARD AGREEMENT FORM FOR THE FELLING, COLLECTION, REMOVAL AND PURCHASE OF TIMBER, FIREWOOD, ETC.

AN AGREEMENT made this 18th day of January in the year 1926 between Western India Match Co., hereinafter called "the Contractor" of the one part and the Secretary of State for India in Council hereinafter called "the Secretary of State" of the other part.

WHEREAS ^{a tender} _{an offer} of the sum of Rs. 792 for 132 acres at Rs. 6 per acre which sum is hereinafter called "the Contract sum" has been made by the Contractor for—

(a) the felling and removal and purchase of timber, firewood and other things specified in item (a) of the Schedule hereto annexed, from the portion of the Kalebu Nakkel forest hereinafter called "the said forest", in the Beranki Range of the Kanara South Division, is hereinafter called the "Coupe" and

(b) the liberty to manufacture charcoal in the coupe and the said tender has been accepted upon the terms herein below expressed, and as part of such terms the sum of Rs. 80 has been deposited with the Divisional Forest Officer of Southern Division, Kanara, hereinafter called the "Divisional Forest Officer", in Government Promissory notes (or in Currency notes or in cash or partly in notes and partly in cash, as the case may be) as security for the due performance and observance by the Contractor of the conditions hereinafter expressed:

AND WHEREAS by a rule under section 75, clause (d) of the Indian Forest Act, 1878, hereinafter called "the said act", published with Government Notification in the Revenue Department No. 5200, dated the 3rd August 1903, whoever enter into any contract with any Forest Officer acting on behalf

of Government shall, if so required by such Forest Officer bind himself by a written instrument to perform such contract and to pay to such Officer on behalf of Government the expenses necessary for or incurred in the execution of day work or thing to be done which he has bound himself, but has failed to do.

Now THESE PRESENTS WITNESS that in pursuance of the said *Tender* and in compliance with the said rule and in consideration of the privileges secured to him by this Agreement, the Contractor does hereby bind himself to perform every duty and act expressed in the conditions hereinafter contained as to be performed by him and does covenant with the Secretary of State that he, the Contractor and each of his servants and agents, will abstain from every act expressed in the conditions hereinafter contained as to be abstained from, and the Contractor does hereby agree, in case of any breach of any of the said conditions, to pay to the Secretary of State through the Divisional Forest Officer on demand made in such behalf by him the sum of one hundred rupees will together with the expenses referred to above in accordance with section 84 of the said Act be recoverable from him as an arrear of land revenue.

The said conditions are as follows, namely:—

I. The Contractor shall perform the following duties, and acts, that is to say—

(a) he shall pay to the Divisional Forest Officer, or should he so direct to some person duly authorised by him in writing to receive the same, the total amount due by him under this agreement as under, *viz.*:—

(a) The full payment, *viz.*, Rs. 792 on or before the time of signing this agreement before any material is removed from the coupe.

(b) He shall pay the full amount of the contract sum, whether the whole of the material contracted for is removed by him from the coupe or not.

(c) He, or where there is more than one contractor, someone of them on behalf of them all, before commencing felling operations and within fifteen days of completion of this agreement shall proceed with the Divisional Forest Officer to inspect the boundaries of the coupe as demarcated on the ground by special or other marks, and shall satisfy himself that the boundaries as defined clearly and sufficiently upon the ground by the special or other marks, and shall give such Officer a written certificate that he is so satisfied and further shall sign—

(1) the plan of the coupe attached to this agreement in acknowledgment that it delineates correctly the coupe as demarcated upon the ground;

(2) the register of trees marked to denote the boundaries of the coupe.

(d) He shall, before commencing cutting operations, clear, and as soon as the vegetation is sufficiently dry, burn fire-traces fifty feet wide round the boundaries of the coupe and along the sides of the internal roads, so as to protect the coupe from fire, and shall until the 31st day of May or such earlier date as the Divisional Forest Officer may, by order in writing, fix in this behalf, preserve all fire-traces required under this clause, and entertain watchers to guard against fire, and guards to prevent cattle of every kind from grazing within the coupe.

(e) He shall—

1. fell all trees and shrubs in the coupe except reserved trees and trees which by the conditions hereinafter contained he is required to abstain from felling.

2. fell such trees, creepers and shrubs in such regular order by sub-coupe or otherwise as may be prescribed by the Divisional Forest Officer, and

3. cut the stools level with the ground and trim them at once,

- (f) He shall, immediately on felling a tree, arrange to clear away the branches which may fall upon or may be encumbering stool, coppice-shoot or seedling, and shall keep all stools, coppice-shoot and seedlings clear of branches and other felled or fallen material; and shall arrange in stacks of such dimensions as the Divisional Forest Officer shall direct at a distance of at least three feet from the stools of felled trees, all wood exceeding 6" in girth and that of 6" in girth and under separately.
- (g) He shall remove from the coupe not later than the 30th day of April 1927 all the material to which he is entitled; and shall stamp all timber pieces with his private property mark before they leave the coupe.
- (h) He shall bring all the timber, firewood and other things which he is entitled to remove from the coupe to a forest depôt (the site of which will be fixed and pointed out to him by the Divisional Forest Officer) in order that the same may be measured, counted, registered and branded, if such is deemed by the Divisional Forest Officer to be necessary; and shall if so required by the Divisional Forest Officer stack and arrange them there for that purpose in the manner prescribed by him.
- (i) He shall on or before the 30th day of April 1927 or such later date as the Divisional Forest Officer may, by order in writing, at his absolute direction fixed in this behalf remove from the depôt all his timber, firewood and other things under passes duly filled in all quantities and sums therein specified being stated in words as well as in figures, and in accordance with the Schedule of Standard Classification to be obtained from the Divisional Forest Officer, signed and issued after personal inspection by the authorised Forest Officer or by the Contractor or by such Agent of his as may be authorised for the time being in accordance with the rules for the time being in force under section 41 of the said Act.
- (j) He shall retain in the Pass Book furnished to him under the said rules the counterfoils of every pass issued in respect of every load of timber, firewood and other things duly filled in, all quantities and sums therein specified being stated in words as well as in figures, in accordance with the corresponding pass issued.
- (k) He shall, as soon as all the passes in any Pass Book so furnished have been issued, return the book containing the counterfoils duly filled in as aforesaid of the issued passes to the Divisional Forest Officer.
- (l) He shall at any time during the currency of this Agreement or on the termination thereof on demand immediately give up or cause to give up to the Divisional Forest Officer every unused or partly used pass book together with the Counterfoils of the issued passes.
- (m) He shall submit from time to time to the Divisional Forest Officer the name, age and address of every person whom he may propose to employ in superintending the working of this contract and shall supply such person with a certificate of the appointment which shall be countersigned by the Divisional Forest Officer, but he shall not employ nor continue to employ to whom the Divisional Forest Officer may object.
- (n) He shall when called upon to do so by an authorised Forest Officer take charge of and keep safely the book called the "Contractor's book," which he shall produce immediately on demand by such Forest Officer and shall return the same to such Forest Officer on the expiry of the contract. Any notice written by the authorised Forest Officer in this book shall be considered as a notice issued in conformity with this agreement.

II. The Contractor, his servants and agents shall abstain from the following acts, that is to say—

- (a) from subletting or assigning this contract, or any portion thereof or share or interest therein, to any person whatsoever without the previous permission in writing of the Divisional Forest Officer,
- (b) from commencing any felling operations before Clause I (c) has been complied with and from continuing the same after the 31st day of March 1927,
- (c) from continuing any operations in the coupe after the 30th day of April 1927,
- (d) from felling, lopping, injuring or permitting to be felled, lopped or injured by any person,
- (ii) any tree or other forest growth outside the coupe,
- (e) from stacking timber or firewood upon the stools of felled trees or upon any coppice-shoot or seedling,
- (f) from causing or allowing the branches of any felled tree to encumber in any way or to lie upon such stools as aforesaid or upon any coppice-shoot or seedling,
- (g) from (i) taking (ii) removing (iii) claiming or (iv) stacking among, below or near any material belonging to the contractor any branches, shoots or thorns of any sort not exceeding six inches in girth at the thickest part, and leaves of trees felled by the contractor or any other material specified in item (d) of the schedule hereto annexed for the satisfaction of privileges granted to villagers or for any other purpose,
- (h) from interfering with any villager or villagers who may be permitted by a Forest Officer any time after the commencement of the felling to take and remove any material reserved under the last preceding clause or to cut and remove brushwood for firewood or rab from the coupe or with any person who may be ordered by the Divisional Forest Officer to carry out or perform any forest operation or work for the improvement of the forest or for any other purpose,
- (i) from manufacturing charcoal within the coupe, except at such places as are pointed out by the Divisional Forest Officer,
- (j) from removing any timber, firewood or other things from the dépôt fixed or pointed out by the Divisional Forest Officer (i) otherwise than under cover of a pass in accordance with the rules in force under section 41 of the said Act, issued by some person duly authorised under the said rules to sign and issue such pass and with all the information required by the said rules duly entered therein or (ii) by any route or routes other than that or those approved by the Divisional Forest Officer,
- (k) from removing any timber, firewood or other thing from the said dépôt unless the conditions as to payment for the time being have been duly fulfilled and until payment has been made in full or the material to be so removed from time to time.
- (l) from stacking or keeping any material at any place within the limits of the said forest other than the authorised dépôt aforesaid,
- (m) from using any road within the limits of the said forest except such as may be approved in this behalf by the Divisional Forest Officer, for the bringing into or taking from the coupe any cart, animal or material,
- (n) from bringing into and from permitting to enter the coupe any cattle, except such as may be necessary for the purpose of this contract,
- (o) from permitting cattle of any kind to be loose or to graze within the coupe,

- (p) from having a tree which has been felled to lie for more than three days without cutting it up as provided under condition I (f),
- (q) from cutting or removing any tree in contravention of condition I (e) (ii).

III. The Contractor agrees to perform the following conditions, that is to say—

- (a) he shall defray all expenses which may be incurred in felling, converting and removing the timber, firewood and other things to which this contract applies,
- (b) no person other than the Contractor, except as is provided in the next following clause, can or shall have any part, share or interest in this contract,
- (c) in the event of the whole or any portion of this contract being sublet with the written permission of the Divisional Forest Officer the Contractor shall be responsible for the acts and omission of the sub-contractors and their servants as if they were the servants of the Contractor,
- (d) if by reason of, or in the course of, any manufacture or charcoal at any places, whether pointed out on this behalf by the Divisional Forest Officer or not, any damage is caused to any stools, coppice-shoots or seedlings, or to any reserved tree the liberty to carry on any manufacture of charcoal within the coupe may be withdrawn forthwith by the Divisional Forest Officer, and the charcoal, if any, still within the coupe may be confiscated by the Divisional Forest Officer, and the Contractor shall also be liable to Government for the amount of all such damage,
- (e) any material remaining within the coupe after the day on which, by the conditions hereinbefore contained the removal thereof is required to be completed, shall be the property of Government, and may be removed from the coupe at the expense of the Contractor in such manner as the Divisional Forest Officer shall decide,
- (f) any timber, firewood or other thing removed from the coupe or from the depôt otherwise than in accordance with the conditions hereinbefore contained shall be liable to seizure by any Forest or Police Officer and when so seized shall be forfeited to Government,
- (g) any timber, firewood or other things remaining in the depôt aforesaid, or anywhere within the limits of the forest, after the day on which by the conditions hereinbefore contained the removal thereof is required to be completed, shall be the property of Government,
- (h) he shall be liable to Government for the amount of all damage which at any time previous to the 30th day of April 1927, or such earlier date as the Divisional Forest Officer may, by order in writing, fix in this behalf, may be caused to any forest produce belonging to Government either within or without the coupe by illicit cutting, by fire or by cattle grazing, whether such cutting or fire is traceable to any act or omission of the Contractor, his servants or agents, or not, and whether such cattle belong to or have been allowed to graze by the Contractor, his servants or Agents, or not. Failure to pay the said amount of damage as assessed by the Divisional Forest Officer shall make the Contractor liable to pay to Government a penalty of 100 rupees and the amount of such penalty shall be recoverable from the Contractor under section 84 of the said Act as if it were an arrear of land-revenue,
- (i) he shall pay all such expenses as the Divisional Forest Officer may determine to be necessary for, or to have been incurred in the

execution of any work or thing to be done, which by the conditions hereinbefore contained he has bound himself to perform or do and which on requisition made by the Divisional Forest Officer he has failed or omitted within the time specified in such requisition to perform or do. Failure to pay the said expenses on demand by the Divisional Forest Officer shall make the contractor liable to pay to Government a penalty of 100 rupees and the amount of such penalty shall be recoverable from the contractor under section 84 of the said Act as if it were an arrear of land revenue,

- (j) The Divisional Forest Officer, in case of any breach of any condition may, in lieu of or in addition to requiring the payment of or recovering any sum payable in case of any such breach, by a notice in writing served upon the Contractor, or, where there is more than one Contractor, upon any one of them on behalf of them all suspend the operation of this agreement pending the decision of the Conservator of Forests; and when the operation of this agreement has been so suspended the Contractor shall put a stop to all work thereunder, and all rights and claims of the Contractor and of his servants or agents thereunder shall be in abeyance pending the decision of the Conservator of Forests,
- (k) if in the opinion of the Conservator of Forests the Contractor or any of his servants or agents has or have broken, evaded or failed to fulfil any of the conditions hereinbefore contained or infringed any provision of the forest law or rules for the time being in force, it shall be lawful for the said Conservator of Forests by a notice in writing to be served upon the Contractor, or where there is more than one Contractor, upon any one of them on behalf of them all, to put an end to this agreement, without prejudice to any right of the Secretary of State in respect of antecedent breaches of contract, and to retain out of the Contractor's deposit or out of any other money of the Contractor in the possession of any Forest Officer, or recover from the contractor the amount, or such portion as is possible of the amount of damages sustained by reason of the non-performance by the Contractor of this agreement, or instead of so putting an end to this agreement and retaining or recovering such sum, to retain or recover such sum without putting an end to this agreement:

Provided always that nothing in this clause or in the last preceding clause shall affect the liability of the Contractor, or of any of his servants or agents, to criminal prosecution for any offence committed by him or them against the forest law or rules for the time being in force,

- (l) if this agreement is put an end to by the Conservator of Forests as aforesaid, the privileges secured to the Contractor under this contract may be resold by the Divisional Forest Officer, subject to the orders of the Conservator of Forests, at the risk of the Contractor (who shall have no claim to the profit, if any, realised by Government on such re-sale) or may be otherwise disposed of as the Conservator may direct and any money which may have been paid to Government under this Agreement, and the entire stock of timber, firewood and other things in the coupe or at the dépôt aforesaid at the time at which the operation of the agreement was suspended by the Divisional Forest Officer, shall be and remain the property of Government, and shall be disposed of for the benefit of Government in such manner as the Conservator of Forests directs.

IV. AND IN CONSIDERATION OF THE PREMISES the Secretary of State does hereby agree with the Contractor that, if he shall well and duly perform this contract, he shall enjoy for and within the period and subject to the

restrictions and conditions hereinbefore stipulated the following privileges viz.—

- (a) the privilege of removing from the coupe for his own use, advantage and profit, timber, firewood and the other things specified in item (a) of the schedule hereto annexed, and
- (b) the privilege of manufacturing charcoal within the coupe and of removing.

And it is further hereby agreed between the parties that in this agreement:—

- (1) the term "Divisional Forest Officer" shall be deemed to mean the Divisional Forest Officer or any Forest Officer authorised by him in writing to act in the matter of the clause in which the said term is employed;
- (2) the term "Conservator of Forests" shall be deemed to mean the Conservator of Forests for the time being;
- (3) the term "Secretary of State" shall be deemed to mean the Secretary of State for India in Council, his successors and assigns;
- (4) the term "the Contractor" shall include each and every person signing this contract, or in the case of this contract being entered into by a firm every member of such firm and his or their heirs, executors, administrators, and (subject to any condition against sub-letting or assigning this contract, or any portion thereof or any share or interest therein, which may be part of the conditions of this contract) his or their assigns, both jointly and severally.

IN WITNESS WHEREOF the Contractor has hereunto set his hand and the Divisional Forest Officer by order of the Governor of Bombay in Council has hereunto set his hand and seal for and on behalf of the Secretary of State the day and the year first abovewritten.

Signed by

(Sd.) V. K. MUDBHATKAL,

Contractor.

The 18th January 1926.

In the presence of.

Divisional Forest Officer,
S. D., Kanara.

Signed by

Schedule referred to in the above agreement.

(a) Materials, etc., with the contractor has the privilege of removing from the coupe:—

All the timber, firewood, bark and charcoal obtained from any unreserved trees standing or fallen within the limits of the coupe as per plan attached.

(b) Description of material reserved under clause II (g):—

All forest produce granted to villagers under the rules or law or executive orders issued from time to time and for the time being in force.

(c) Description of trees reserved under clause II (a) (i) :—

(i) All trees marked to denote the boundaries of the coupe.

(ii) All sandalwood trees living or dead.

- (iii) Any tree on the edge of the Kallan or ridges at hills within a distance of 50 feet as may be ordered by the Divisional Forest Officer.

Signed by

(Sd.) V. K. MUDBHATKAL,

Contractor.

18th January 1926.

In the presence of

Signed by

Conservator of Forests.

(2) STANDARD AGREEMENT FORM FOR THE FELLING, COLLECTION, REMOVAL AND PURCHASE OF TIMBER, FIREWOOD, ETC.

AN AGREEMENT made this 9th day of June in the year 1926 between the Western India Match Company Limited, Bombay, hereinafter called "the Contractor" of the one part and the Secretary of State for India in Council hereinafter called "the Secretary of State" of the other part.

WHEREAS an offer of a rate of Re. 1 per ordinary cartload and Rs. 6 per 50 c.ft. ton of converted material of the first nine soft wood species mentioned in the list A of the schedule hereto annexed and Rs. 4 per ordinary cartload of logs and Rs. 12 per 50 c.ft. ton of converted material of Mangowood mentioned at Serial No. 10 of the list A of the schedule, as royalty charges, which rate is hereinafter called "the contract sum" has been made by the contractor for—

- (a) the felling and removal and purchase of the softwood species specified in item (a) of the schedule hereto annexed, from the portion of the Reserved forest, hereinafter called "the said forest" in the Fen Range of the Kolaba Division, which is known as Group No. III consisting of villages noted below,

1. Usaroli.	10. Parkhanda.
2. Khanau.	11. Ratesai.
3. Vadval.	12. Horala.
4. Narangi.	13. Kansai.
5. Khambewadi.	14. Apta.
6. Tondli.	15. Tambati.
7. Chilthan.	16. Talashi.
8. Shedsai.	17. Kavashi.
9. Karambeli.	

- (b) and the said tender has been accepted upon the terms hereinbelow expressed, and as part of such terms the sum of Rs. 500, Five hundred only, has been deposited with the Divisional Forest Officer of Kolaba, hereinafter called "The Divisional Forest Officer," as security for the due performance and observance by the Contractor of the conditions hereinafter expressed.

AND WHEREAS by a rule under section 75, clause (d) of the Indian Forest Act, 1878, hereinafter called "the said Act," published with Government Notification in the Revenue Department, No. 5200, dated the 3rd August 1903, whoever enter into any contract with any Forest Officer acting on behalf of Government shall, if so required by such Forest Officer, bind himself by a written instrument to perform such contract:

NOW THESE PRESENTS WITNESS that in pursuance of the said offer and in compliance with the said rule, and in consideration of the privileges secured to him by this agreement, the Contractor hereby does bind himself to perform

every duty and act expressed in the conditions hereinafter contained as to be performed by him and does covenant with the Secretary of State, that he, the Contractor, and each of his servants and agents, will abstain from every act expressed in the conditions hereinafter contained as to be abstained from, and the Contractor does hereby agree, in case of any breach of any of the said conditions, to pay to the Secretary of State through the Divisional Forest Officer on demand made in such behalf by him the sum of one hundred rupees and that the said sum of one hundred rupees will, in accordance with section 84 of the said Act, be recoverable from him as an arrear of land revenue.

THE SAID CONDITIONS are as follows, namely:—

I. The Contractor shall perform the following duties, and acts, that is to say:—

- (a) he shall pay to the Divisional Forest Officer or should he so direct to some person duly authorised by him in writing to receive the same, the total amount due by him under this agreement as under, viz.—
1. Rs. 100 for each pass book containing 100 passes at the rates of Re. 1 per pass for soft-wood logs.
 2. Rs. 200 for each pass book containing 100 passes at the rate of Rs. 4 per ton of 50 c.ft. for converted soft-wood planks, etc., before any material is removed from the above mentioned area.
 3. Rs. 400 for each pass book containing 100 passes at the rate of Rs. 4 per pass for Mango logs.
 4. Rs. 1,200 for each pass book containing 100 passes at the rate of Rs. 12 per ton of 50 c.ft. for converted Mango wood, before any material is removed from the above mentioned area.

N.B.—A monthly statement of the cubical contents of converted material carried to Khopoli Station shall be supplied by the Company to the Divisional Forest Officer, and after due check, the excess money recovered or to be recovered on the basis of Rs. 4 per ton or Rs. 12 per ton shall be adjusted by cash payments half yearly.

- (c) he, or where there is more than one Contractor some one of them on behalf of them all, before commencing felling operations, and within fifteen days of completion of this agreement, shall proceed with the Divisional Forest Officer to inspect the boundaries of the Group as demarcated on the ground by special or other marks, and shall satisfy himself that the boundaries are defined clearly and sufficiently upon the ground by the special or other marks, and shall give such officer a written certificate that he is so satisfied, and further shall sign—
- (i) the plan of the Group attached to this agreement in acknowledgment that it delineates correctly the coupe as demarcated upon the ground.
- (e) he shall
- (i) fell such softwood species noted in schedule A as are above 38" in girth at the breast height and suitable for Match manufacture and Mango wood.
 - (ii) fell such trees systematically taking each slope in regular order as may be prescribed by the Divisional Forest Officer, and
 - (iii) cut the stools of match wood trees within one foot of the ground. The stools need not be trimmed.
- (f) he shall immediately on felling a tree, arrange to clear away the branches which may fall upon or may be encumbering stool, coppice-shoot or seedling, and shall keep all stools, coppice-shoot, and seedling clear of branches and other felled or fallen material; and shall arrange in stacks of such dimensions as the Divisional

Forest Officer shall direct, at a distance of at least three feet from the stools of felled trees, all wood exceeding 6" in girth and that of 6" in girth and under separately;

- (g) he shall remove from the Goup not later than the 31st day of May 1927 all the material to which he is entitled; and shall stamp all timber pieces with his private property mark before they leave the coupe;
- (h) he shall bring all the timber, firewood and other things which he is entitled to remove from the Group to a forest depôt (the site of which will be fixed and pointed out to him by the Divisional Forest Officer) in order that the same may be measured, counted, registered and branded, if such is deemed by the Divisional Forest Officer to be necessary; and shall if so required by the Divisional Forest Officer, stack and arrange them there for that purpose in the manner prescribed by him;
- (i) he shall on or before the 31st day of May 1927 or such later date as the Divisional Forest Officer, may by order in writing, at his absolute direction fixed in this behalf, remove from the depôt all his timber, firewood and other things under passes duly filled in, all quantities and sums therein specified being stated in words as well as in figures, and in accordance with the Schedule of Standard Classification to be obtained from the Divisional Forest Officer, signed and issued after personal inspection by the authorised Forest Officer or by the Contractor or by such agent of his as may be authorised for the time being in accordance with the rules for the time being in force under Section 41 of the said Act;
- (j) he shall retain in the pass-book furnished to him under the said rules the counterfoil or every pass issued in respect of every load of timber, duly filled in, all quantities and sums therein specified being stated in words as well as in figures, in accordance with the corresponding pass issued;
- (k) he shall, as soon as all the passes in any pass book so furnished have been issued, return the book containing the counterfoils duly filled in as aforesaid of the issued passes to the Divisional Forest Officer;
- (l) he shall at any time during the currency of the agreement or on the termination thereof on demand immediately give up or cause to be given up to the Divisional Forest Officer every unused or partly used pass-book together with the counterfoils of the issued passes;
- (m) he shall submit from time to time to the Divisional Forest Officer the name, age and address of every person whom he may propose to employ in superintending the working of this contract, and shall supply such person with a certificate of appointment which shall be countersigned by the Divisional Forest Officer; but he shall not employ nor continue to employ any person to whom the Divisional Forest Officer may object;
- (n) he shall when called upon to do so by an authorised Forest Officer take charge of and keep safely the book called the 'Contractor's Book' which he shall produce immediately on demand by such Forest Officer and shall return same to such Forest Officer on the expiry of the contract. Any notice written by the authorised Forest Officer in the book shall be considered as a notice issued in conformity with this agreement;
- (o) he shall pay such value for the trees (other than those he is entitled to) damaged or broken in the course of his felling operations, as may be assessed by the Divisional Forest Officer, Kolaba, and after payment such trees may be removed by the contractor;

- (p) he shall cut all such damaged trees as the Divisional Forest Officer may direct (after they have been marked for this purpose under his order) flush with the ground;
- (q) he shall export all material he is entitled to from Khopoli Station only.

II. The Contractor, his servants and agents shall abstain from the following acts, that is to say:—

- (a) from sub-letting or assigning this contract or any portion thereof or share or interest thereon, to any person whatsoever without the previous permission in writing of the Divisional Forest Officer;
- (b) from commencing any felling operations before clause I (a) and I (c) has been complied with and from continuing the same after the 31st day of May 1927;
- (c) from continuing any operations in the coupe after the 31st day of May 1927;
- (d) from felling, lopping, injuring or permitting to be felled, lopped or injured by any person;
 - (i) any reserved tree, that is to say, any tree other than those of the species mentioned in Schedule A;
 - (ii) any tree or other forest growth outside the group;
- (e) from stacking timber or firewood upon the stools of felled trees or upon any coppice shoot or seedling;
- (f) from causing or allowing the branches of any felled tree to encumber in any way or to lie upon such stools as aforesaid or upon any coppice shoot or seedling;
- (g) from (i) taking, (ii) removing, (iii) claiming or (iv) stacking among, below or near any material belonging to the Contractor any branches, stools and thorns of any sort not exceeding six inches in girth at the thickest part and leaves of trees felled by the Contractor or any other material specified in item (d) of the Schedule hereto annexed for the satisfaction of privileges granted to villagers or for any other purpose;
- (h) from interfering with any villager or villagers who may be permitted by a Forest Officer at any time after the commencement of the felling to take and remove any material reserved under the last preceding clause or to cut and remove brushwood for firewood or rab from the group or with any person who may be ordered by the Divisional Forest Officer to carry out or perform any forest operation or work for the improvement of the forest or for any other purpose;
- (i) from removing any timber from the depôt fixed or pointed out by the Divisional Forest Officer (i) otherwise than under cover of a pass in accordance with the rules in force under section 41 of the said Act, issued by some person duly authorised under the said rules to sign and issue such pass and with all the information required by the said rules duly entered therein or (ii) by any route or routes other than that or those approved of by the Divisional Forest Officer;
- (k) from removing any timber, from the said depôt unless the conditions as to payment for the time being have been duly fulfilled and until payment has been made for the material to be so removed from time to time;
- (l) from stacking or keeping any material at any place within the limits of the said forest other than the authorised depôt aforesaid;
- (m) from using any road within the limits of the said forest except such as may be approved of in this behalf by the Divisional Forest Officer for the bringing into or taking from the coupe any cart animal, or material;

- (n) from bringing into and from permitting to enter the coupe any cattle except such as may be necessary for the purposes of this contract;
- (o) from permitting cattle of any kind to be loose or to graze within the coupe;
- (p) from leaving a tree which has been felled to lie for more than three days without cutting it up as provided under condition I (f);
- (q) from cutting or removing any tree in contravention of condition 1(e) (ii);
- (r) from cutting any trees whatever in the coupes marked for exploitation during 1926-27 in the various Blocks contained in the group about necessary information will be supplied to him by the Divisional Forest Officer, Colaba;
- (s) from interfering with any contractor or his agents or workmen who have been authorised to work in the coupes mentioned in II (r) above.

III. The Contractor agrees to perform the following conditions, that is to say:—

- (a) he shall defray all expenses which may be incurred in felling, converting and removing the timber, to which this contract applies;
- (b) no person other than the Contractor, except as is provided in the next following clause, can or shall have any part, share or interest in this contract;
- (c) in the event of the whole or any portion of this contract being sublet with the written permission of the Divisional Forest Officer the Contractor shall be responsible for the acts and omissions of the sub-contractors and their servants as if they were the servants of the Contractor;
- (e) any material remaining within the coupe after the day on which, by the conditions hereinbefore contained the removal thereof is required to be completed, shall be the property of Government, and may be removed from the Group at the expense of the Contractor, in such manner as the Divisional Forest Officer shall decide;
- (f) any timber, removed from the group or from the depôt otherwise than in accordance with the conditions hereinbefore contained shall be liable to seizure by any Forest or Police Officer and when so seized shall be forfeited to Government;
- (g) any timber, remaining in the depôt aforesaid, or anywhere within the limits of the forest, after the day on which by the conditions hereinbefore contained the removal thereof is required to be completed, shall be the property of Government;
- (h) he shall be liable to Government for the amount of all damages which, at any time previous to the 31st day of May 1927, or such earlier date as the Divisional Forest Officer, may, by order in writing, fix in this behalf, may be caused to any forest produce belonging to Government either within or without the coupe, by illicit cutting, by fire or by cattle grazing, whether such cutting or fire is traceable to any act or omission of the Contractor, his servants or agents, or not, and whether such cattle belong to or have been allowed to graze by the Contractor, his servants or agents, or not. Failure to pay the said amount of damage as assessed by the Divisional Forest Officer shall make the Contractor liable to pay to Government a penalty of 500 rupees and the amount of such penalty shall be recoverable from the Contractor under Section 84 of the said Act as if it were an arrear of land revenue;
- (i) he shall pay all such expenses as the Divisional Forest Officer may determine to be necessary for, or to have been incurred in the

execution of any work or thing to be done, which by the conditions hereinbefore contained he has bound himself to perform or do and which on requisition made by the Divisional Forest Officer he has failed or omitted within the time specified in such requisition to perform or do. Failure to pay the said expenses on demand by the Divisional Forest Officer shall make the Contractor liable to pay to Government a penalty of 500 rupees and the amount of such penalty shall be recoverable from the Contractor under Section 84 of the said Act as if it were an arrear of land-revenue;

- (j) The Divisional Forest Officer, in case of any breach of any condition hereinbefore contained, may, in lieu of or in addition to requiring the payment of or recovering any sum payable in case of any such breach, by a notice in writing served upon the Contractor, or, where there is more than one Contractor, upon any one of them on behalf of them all suspend the operation of this agreement pending the decision of the Conservator of Forests; and when the operation of this agreement has been so suspended the Contractor shall put a stop to all work thereunder, and all rights and claims of the Contractor and of his servants or agents thereunder shall be in abeyance pending the decision of the Conservator of Forests;
- (k) if in the opinion of the Conservator of Forests the Contractor or any of his servants or agents has or have broken, evaded, or failed to fulfil any of the conditions hereinbefore contained or infringed any provision of the forest law or rules for the time being in force, it shall be lawful for the said Conservator of Forests by a notice in writing to be served upon the Contractor, or where there is more than one Contractor, upon any one of them on behalf of them all, to put an end to this agreement, without prejudice to any right of the Secretary of State in respect of antecedent breaches of contract, and to retain out of the Contractor's deposit or out of any other money of the Contractor in the possession of any Forest Officer, or recover from the Contractor the amount, or such portion as is possible of the amount of damages sustained by reason of the non-performance by the Contractor of this agreement, or instead of so putting an end to this agreement and retaining or recovering such sum, to retain or recover such sum without putting an end to this agreement:

Provided always that nothing in this clause or in the last preceding clause shall affect the liability of the Contractor, or of any of his servants or agents, to criminal prosecution for any offence committed by him or them against the forest law or rules for the time being in force;

- (l) if this agreement is put an end to by the Conservator of Forests as aforesaid, the privileges secured to the Contractor under this Contract may be re-sold by the Divisional Forest Officer, subject to the orders of the Conservator of Forests, at the risk of the Contractor (who shall have no claim to the profit, if any, realized by Government on such re-sale), or may be otherwise disposed of as the Conservator may direct and any money which may have been paid to Government under this agreement, and the entire stock of timber, firewood and other things in the coupe or at the dépôt aforesaid at the time at which the operation of the agreement was suspended by the Divisional Forest Officer, shall be and remain the property of Government, and shall be disposed of for the benefit of Government, in such manner as the Conservator of Forests directs.

IV. AND IN CONSIDERATION OF THE PREMISES the Secretary of State does hereby agree with the Contractor that, if he shall well and duly perform this

contract, he shall enjoy for and within the period and subject to the restrictions and conditions hereinbefore stipulated the following privileges, viz.—
item (a) of the schedule hereto annexed, and

- (a) the privilege of removing from the coupe for his own use, advantage and profit, timber, firewood and the other things specified in
- (b) the privilege of manufacturing charcoal within the coupe and of removing the same therefrom for his own use, advantage and profit.

AND it is further hereby agreed between the parties that in this agreement—

- (1) the term "Divisional Forest Officer" shall be deemed to mean the Divisional Forest Officer or any Forest Officer authorised by him in writing to act in the matter of the clause in which the said term is employed;
- (2) the term "Conservator of Forests" shall be deemed to mean the Conservator of Forests for the time being;
- (3) the term "Secretary of State" shall be deemed to mean the Secretary of State for India in Council, his successors and assigns;
- (4) the term "Contractor" shall include each and every person signing this contract, or in the case of this contract being entered into by a firm every member of such firm and his or their heirs, executors, administrators, and (subject to any condition against subletting or assigning this contract, or any portion thereof or any share of interest therein, which may be part of the conditions of this contract) his or their assigns, both jointly and severally.

IN WITNESS WHEREOF the Contractor has hereunto set his hand, and the Divisional Forest Officer, Colaba, by order of the Governor of Bombay in Council, has hereunto set his hand and seal for and on behalf of the Secretary of State the day and the year first above written.

Signed by Director, Western India Match Co.

in the presence of

(Sd.)

Western India Match Co., Ltd.

(Sd.)

Director.

Contractor.

Schedule Referred to in the above Agreement.

(a) Materials, etc., which the Contractor has the privilege of removing from the coupe:—

All the timber obtained from the soft wood species mentioned in list A below, and trees standing or fallen within the limits of the coupe as per plan attached.

(b) Description of material reserved under clause II (g):—

All forest produce granted to villagers under the rules or law or executive orders issued from time to time and for the time being in force.

(c) Description of trees reserved under clause II (a) (i). All tree-growth other than these mentioned in list A below.

LIST A.

Species of soft-woods for Match Manufacture.

- 1. *Ailanthus Excelsa*—Maharuk or Maha Nimb.
- 2. *Rombax Malabaricum*—Savar.

3. *Holoptelca Integrifolia*—Tapshi or Wawala.
4. *Hymonodictyon Excelsum*—Kala Kudah or Bhoisal.
5. *Kydia calycina*—Warung or Ran Bhendi.
6. *Odina Wodier*—Shemue or Modal or Mose.
7. *Spondias Mangifera*—Ambada.
8. *Trewia nudiflora*—Petari.
9. *Garuga pinnata*—Kakad.
10. *Mangifera indica*—Mango.

AGREEMENT BETWEEN THE ASSAM MATCH COMPANY, LIMITED,
AND THE CONSERVATOR OF FORESTS, ASSAM, DATED THE 23rd
OCTOBER 1925.

THIS AGREEMENT made this twenty-third day of October one thousand nine hundred and twenty-five between the Assam Match Company, Limited hereinafter called the Lessees which expression shall unless there is anything repugnant to the context include their representatives and permitted assigns of the one part and Frederick Trafford, Conservator of Forests, Assam, hereinafter called the Lessor which expression shall unless there is anything repugnant to the context include his representatives and successors in office of the other part Witnesseth whereas the Lessees have applied to the Lessor for the monopoly right of felling and extracting timber of soft wood species suitable for manufacturing match sticks and match boxes and packing boxes from the Government Reserved Forests between the Hel and the Sankos rivers more particularly described in the Schedule hereto annexed in the District of Goalpara, Assam, on the terms and conditions hereinafter set forth it is mutually agreed upon as follows:—

1. That the Lessees shall have the sole right of felling and extracting timber of soft wood species such as *Bambax Malabaricum*, *Derris Robusta*, *Machilus Odoratissima* or *Bombycina* and other soft wood trees suitable for the manufacture of match sticks and boxes from Government Reserved Forest between the Hel and the Sankos rivers more particularly described in the Schedule hereto for the period of one year from the 1st day of November one thousand nine hundred and twenty-five provided that the Divisional Forest Officer shall have power to permit the removal of timber required locally for building and firewood at his discretion.

2. That the Lessees shall pay within twenty days of the execution of these presents the monopoly fee of Rupees two thousand and sixty-two and annas eight for the rights hereby granted.

3. That the Lessees shall also pay royalty at the rate of six pies per cubic feet in the log for all timber extracted by them.

4. That all logs extracted by the Lessees shall be brought to a depôt or depôts mutually agreed upon between them and the Divisional Forest Officer, Goalpara, for measurement and marking by a Forest Officer authorised in this behalf by the Divisional Forest Officer, Goalpara.

5. That the cubic contents of logs shall be calculated according to the Mercer's tables.

6. That bills shall be made out on the measurements taken by the Forest Officer at the depôt and shall be paid by the Lessees as soon as possible after presentation so that transit passes for the removal of the timbers covered by the bills may be issued.

7. That the Lessees shall be responsible for the works of the employees and workmen in the breach of any provision of the Assam Forest Regulation or Rules made thereunder.

8. That the Lessees shall if called upon by the Divisional Forest Officer, Goalpara, submit to him a list of all their workmen and employees engaged in connection with their work under this agreement and shall not employ any person whom the Divisional Forest Officer, Goalpara, may disapprove.

9. That this agreement shall expire on the thirty-first day of October one thousand nine hundred and twenty-six and the Lessees shall have the option of working under it for a further period of one year from first day of November one thousand nine hundred and twenty-six on the terms herein set forth.

10. That the rights conferred and the liabilities created by this agreement shall not be transferred except with the written permission of the Governor in Council, Assam, and his decision shall be final in the case of disagreement between the parties hereto as to the interpretation of any clause of this agreement.

11. That the breach of any of the conditions of this agreement by the Lessees or their workmen or employees shall render it liable to be cancelled by the Conservator and the Lessees shall be responsible for paying the prescribed royalty on all timbers felled by them either lying in the forest or brought to the depôt—a reasonable time for their removal being granted by the Divisional Forest Officer, Goalpara.

IN WITNESS whereof the above Company has hereunto affixed its common seal and the Conservator of Forests, Assam, has hereunto set his hand the day Forest Officer, Goalpara.

(Sd.) FREDERICK TRAFFORD,
Conservator of Forests,
Assam.

Signed by the said Conservator of Forests, Assam, in the presence of

Witness:

(Sd.) SURESH CHANDRA
MUKHERJI,
Superintendent, Conservator's Office,
Assam.

The common seal of the above-named Assam Match Company, Limited, was hereunto affixed by the direction and in the presence of The Hon'ble Samuel Best and R. Thorburn two of the Directors thereof who have hereunto set their hands in the presence of



(Sd.) PANKAR BHURAN, <i>Asstt. to Messrs. Morgan & Co.,</i>	(Sd.) SAMUEL BEST	} <i>Directors.</i>
<i>Solicitors,</i> <i>Calcutta.</i>	(Sd.) R. THORBURN	

The Schedule above referred to.

The Kachugaon Reserve and a portion of the Ripu Reserve bounded as follows:—

North	.	.	.	The Bhutan Boundary from the Sankos river to the Hel river.
East	.	.	.	The Hel river from the Bhutan boundary to the point where it meets the Southern boundary of the Ripu Reserve.

- South From the abovementioned point along a portion of the Southern boundary of the Ripu Reserve and the Southern boundary of the Kachugnon Reserve to the Sankos river.
- West From above point the Sankos river to the Bhutan boundary.

(Sd.) SAMUEL BEST

(Sd.) R. THORBURN.

Witness:

PANKAR BHURANTHIS.

Witness:

(Sd.) SURESH CHANDRA MUKHERJI, (Sd.) FREDERICK TRAFFORD,

*Superintendent, Conservator's Office,
Assam.*

*Conservator of Forests,
Assam.*

**The Gujarat Islam Match Manufacturing Company, Limited,
Ahmedabad, Bombay.**

Letter dated 19th April 1927.

We beg to enclose herewith our replies to the questionnaire issued by the Tariff Board on Match Industry.

Replies to questionnaire on the Match Industry.

1. The Company was established in 1895. It is a public registered Company.
2. The capital invested is fully Indian. The total number of directors is four all of whom are Indians. No European is employed.
3. We undertake the whole process of manufacturing splints as well as match boxes from veneers made in our factory.
4. The factory commenced manufacturing matches from 1st October 1897.
5. Our existing plant is sufficient to turn out 1,000 to 1,200 gross of match boxes per day of 10 hours if fully worked.
6. The size of match boxes manufactured by us is three-fourth.
7. The output of our factory for the last eight years is as under:—

1919	. . . . .	2,126
1920	. . . . .	2,092
1921	. . . . .	2,473
1922	. . . . .	3,067
1923	. . . . .	3,609
1924	. . . . .	3,525
1925	. . . . .	4,107
1926	. . . . .	3,028

The above figures indicate the number of cases each case containing 50 gross of matches.

8. Our factory is situated at Ahmedabad.

(a), (b), (c) and (d) Yes.

There is no one factor which is only to be taken into account while selecting the site of a match factory. There are at least three important considerations,

vis., (1) abundance of suitable wood supply, (2) plentiful labour and (3) vicinity to an important market to be borne in mind.

9. (a) Yes. Indian matches are generally inferior in point of witness of wood and the general finish of boxes.

(b) The main ground for prejudice is the colour of wood which is not white.

(c) Rs. 1-8 per gross represents a fair measurement of the difference in quality to overcome the prejudice against Indian matches.

(a), (b) and (c) No.

We generally use Simal (*Bombax Malbaricum*), Gugal (*Boswellia rata*), Mohino (*Odina Wodier*) and Kochri (*Spondias Mangifera*).

We buy empty cases of imported yarns from the local mills out of which packing cases are prepared. A few planks of *Bombax Malbaricum* and *Boswellis Serrata* are however used in these cases.

12. (a), (b) and (c) Yes. Indian wood is only defective in point of whiteness.

13. (a) Average 80,000 maunds of wood (one maund equivalent to 40 seers each seer being of 40 tolas).

(b) 120,000 maunds.

14. Forty maunds are required to turn out 100 gross of match boxes of finished matches.

15. The size of the packing case is height 30" × length 29" × width 22½". The weight of the packing case is about 1¼ kachha maund and 50 gross are packed in such a case.

16. The factory draws its supplies from the Panch Mahals and the forests around the Dangs which are situated at a distance of about 100 and 210 miles respectively.

17. The felling operations are done both departmentally as well as through contractors and the wood is brought to different stations in carts and thence to the factory by rail.

18. We pay Re. 0-4-0 and Re. 0-6-0 as royalty per cartload to the Government in the Dangs and the Panch Mahals respectively.

19. We buy wood on weight and our cost per 100 kachha maund delivered at the factory comes to about Rs. 45.

20. We are allowed to work the Panch Mahals forests by paying a royalty of Re. 0-6-0 per cartload. We have got a concession rate of Rs. 0-4-0 per cartload to work in the Dangs forest for a period of 10 years. A copy of the above concessions is enclosed herewith.

The terms of concessions are considered far from satisfactory although it may not apparently appear so. We were not required to remove debris of match wood during all these years after our cutting operations were over in each coup or block. Till 1925, the rate of royalty payable in Panch Mahals was Re. 1 which was reduced to Re. 0-6-0 per cartload then. This concession was however nullified by the new order of our having to remove debris. This policy meant in other words "Taking by the left hand that which is given by the right." To remove debris from forests to the places outside forest limits will cost no less than Rs. 3 per cartload against Re. 1 which the Government recovered from us before. You will thus see that the concessions referred to above are rendered totally useless in effect.

21. Yes.

22. The supply of wood varies each year and we have to go deep into the forests.

(a), (b) and (c) Yes. Another reason of deficiency of supplies is that forest officers have till now cut and thrown away several match trees in order to plant valuable timber. This policy is mistaken in our opinion.

23. We get wood from the Panch Mahals as well as Bilimora side. It is only since the last year that we have removed about 50,000 kachha maunds of wood from the latter place.

24. Yes. New plantations of match trees are undertaken by the Forest Department in Panch Mahals and we, too, have started our own plantation at Shahwadi—a village six miles away from our factory.

25. No. The railway freights require to be lowered to assist the industry.

26. The following are the raw materials required and the yearly consumption is shown separately against each:—

Name of article.	Quantity consumed.
Chlorate of Potash powder	10 tons.
Match Glue	26 cwts.
Bichromate of Potash powder	8 "
Red Amorphous Phosphorus	15 "
Black, Sulphide of Antimony powder	5 "
Manganese powder	2½ "
Zinc White	17 cwts.
Colcothar	14 "
Iron Oxide	5 "
White Dext erine	2 "
Lamp Black	4½ "
Glass powder	14 "
Corz Mill	2 "
Nitrate of Strontia	2 tons.
Nitrate of Baryta	2½ "
Infusorial Earth	2½ cwts.
Sulphur powder	16 "
Roll papers	11 tons.
Craft packing papers	8 "

28A. All are imported from abroad.

B. Prices are as under:—

Phosphorus £210. Potash £32. Baryta £25-10. Strontia £31-15. Bichromate of Potash powder at 5½d. per lb. Zinc White £50. Glue £65. Black Sulphide of Antimony £48. Glass Powder £7. Roll Papers £27. Craft Papers £25-10. Infusorial Earth £12. Manganese Powder £26-15. Small Labels 8d. per 1,000, dozen labels at 1s. 4d. per 1,000 and half gross labels at 2s. 6d. per 1,000. All prices to be understood per ton delivered c.i.f., Bombay.

28. (c) Bombay.

(d) Prices being c.i.f., freight and insurance cannot be mentioned.

(e) Rs. 11 per ton.

(f) Rs. 60 per ton.

(g) Rs. 15 per cent.

Questions B and C are not replied as none of the chemicals used by us are either manufactured in India or by us.

29. (a) All of the above chemicals can be manufactured in India if proper facilities are given.

(b) Nil.

30. No.

31. We have no skilled labour imported from abroad.

32. Nil.

33. In the beginning, match experts from Europe were invited and Indian labour was trained under them.

34. The total number of workmen employed is approximately 250 out of whom 200 are males and 50 females. The average earnings of male and female labourers come to Re. 0-13-0 and Re. 0-8-0 per day respectively.

35. The labour is usually drawn from the vicinity of the factory.

36. Yes. This is evident from the record of output.

37. As most of the labourers live in close proximity of the factory, there is no need of special housing facilities.

38. We use steam power.

39. As electric power is not used, it is not possible to give the information required.

40. We use coal as well as waste wood as fuel. There is no scarcity of fuel.

41. About 2 lbs. of coal and 5 lbs. of waste wood are required per one gross of complete match boxes.

42. The f.o.r. price of first class steam coal at the source, viz., Jharia varies from Rs. 5-8 to Rs. 6-8. The railway freight is Rs. 13-6 per ton and the cost at the factory comes to about Rs. 22 per ton.

43. The whole requirements of fuel cannot be met from waste wood alone. No concession with regard to such wood is obtained from the Government.

44. The information required may be had from sea customs statistics.

45. Matches represent a bare necessity of life and their consumption can only increase with a rise in population.

46. Our principal markets before were Khandesh, Deccan, Central Provinces, Rajputana and Madras Presidency but from the time of the starting of match factories in Bombay particularly at Ambernath, we had to seek other markets. Punjab, Delhi, United Provinces and Marwar are the principal markets at present. They are situated from 200 miles and upwards from our factory.

47. Delhi, Cawnpore, Agra, Muttra, Marwar and Punjab are places where we can compete against foreign matches.

48. (a) There is no such market where imported matches are sold exclusively. The ports are generally the centres where imported matches are sold most.

(b) The low prices at which matches passing from Kathiawar ports are sold and the long distances to which they travel are most potent factors pointing to illicit importation of matches.

49. Sweden and Czecho Slovakia are the principal foreign countries from which competition in the Indian market is the keenest.

50. Foreign matches imported under the present rate of customs duty cannot compete keenly with Indian matches. It must however be noted that this import will not be stopped until consumers in India are accustomed to use their own matches.

51. During 1918-22, Japanese matches virtually enjoyed monopoly of the Indian market which were imported at prices raging from Yens 80 to 130 per case of 100 gross. They were assessed at the then prevailing rate of import duty, viz., $7\frac{1}{2}$ per cent. *ad valorem*.

Our selling prices of safety matches varied from Rs. 1-11 to Rs. 1-4 from 1921 to 1926.

Matches from imported wood were not made in India prior 1924. Their prices from 1924 to 1926 ruled as under :—

1924	.	.	.	.	.	Rs. 1-12 to Rs. 2 per gross.
1925	.	.	.	.	.	Rs. 1-11 to Rs. 1-13 per gross.
1926	.	.	.	.	.	Rs. 1-3 to Rs. 1-6 per gross.

It is not possible to give f.o.b. prices of foreign matches as they are invariably quoted for c.i.f. delivery.

52. The information required is obtainable through old wholesale firms importing foreign matches.

53. (a) Foreigners in order to keep their hold on the Indian market often sell their products at a loss in view of the fact that they have got several other markets where they can make profit to compensate for the loss suffered here.

(b) We think, there is practically no margin to foreigners.

(c) We firmly believe that they cannot produce matches at such a low rate.

54. (a), (b), (c), (d), (e), (f), (g), (h) and (i) Yes.

55. The disadvantages are not such as could not be overcome.

56. Yes. We consider 1,000 gross as the smallest unit of production that can be operated economically under present day conditions.

57. The total paid up capital is Rs. 97,070 while the amount invested on plant and machinery is Rs. 1,45,684-7. The additional amount is not borrowed from any outside source but represents a portion of depreciation and other funds of the Company.

58. We have got all the machines with two or three exceptions of German make manufactured by Mr. A. Roller. Most of the machines were erected in 1897 and few in 1910, 1922 and onwards.

59. (a) No. Our machines are of 30 years old and only few machines are bought recently.

(b) All processes except filling and packing are done by machines. If these are done by machines, there may be a saving of 15 per cent. in labour.

60. (a) and (b) Yes. We are seriously thinking of installing one continuous machine which considerably saves labour charges and helps to increase the output. We have also a mind to order out machines for box and splint drying and also some other machines specially to turn out half size matches.

61. Some parts of machinery which cannot be immediately had from foreign countries or whose costs are prohibitive are usually made in India.

62. (b) We are permanent lessees. We have paid no price for this land but if sold it may fetch Rs. 25,000.

(c) Rs. 66,489-7-2.

(d) Rs. 1,45,684-7.

(e) Rs. 2,20,519-5-3.

The above figures are shown as they stood in our books on 31st December 1925.

63. The above figures represent the actual cost of the various assets without deducting depreciation amount. The amounts of depreciation standing to the credit of machinery and buildings are Rs. 95,352-4-9 and Rs. 44,158-10-4 respectively. It may be noted that every year sums actually spent after machinery as well as building repairs are debited to their respective depreciation funds accounts.

64. The sum actually set aside for depreciation of machinery is less than the rate of depreciation considered suitable.

65. (a) Rs. 1,00,000.

(b) Rs. 3,00,000.

The operating cost of a new factory established will be undoubtedly greater than ours.

66. 1917 to 1921.—Nil.

1922.—One Dipping machine with automatic dipping device at £80 draft paid at the rate of 1s. $3\frac{1}{2}$ d. per rupee.

1923.—Nil.

1924.—Two match box labelling machines each at £30-10. One automatic knife grinding machine at £63-10. Two conical grinding mills each at £17-12. One paste boiling apparatus at £19-10. The value of all these machines was paid at the rate of 1s. $5\frac{2}{3}$ d.

1925.—One ball mill at American Dollars 221-19 the draft for which was retired at 280 rupees for 100 Dollars. One waste match levelling machine at £55-16. Draft paid at 1s. $5\frac{2}{3}$ d. One outer box machine at £54 and one inner box machine at £90 both of Swedish make. Drafts retired at 1s. $5\frac{2}{3}$ d. One outer box machine at £62-2 and one inner pasting machine at £98-2. Drafts paid at 1s. $6\frac{1}{3}$ d. One steam paraffining apparatus with automatic paraffin supply at £35-12. Draft paid at 1s. $6\frac{1}{3}$ d.

1926.—One peeling machine type SKM at £144. Draft retired at 1s. $6\frac{1}{2}$ d. One side painting machine at £90. Draft paid 1s. $6\frac{1}{2}$ d. One frame filling machine at American Dollars 418-50. Draft paid at Rs. 275½ for 100 Dollars. All the prices to be understood c.i.f. Bombay.

67. (a) Rs. 1,00,000.

(b) Rs. 97,500.

(c) Rs. 97,070.

All the shares subscribed are ordinary, their number being 390, all being fully paid up.

68. There are no preference shares.

69. There are no deferred shares.

70. (a) The amount of paid up share capital (ordinary) is Rs. 97,070.

(b) A list showing the rate of dividend distributed each year is attached herewith.

(c) The information is given in the above list.

71. The average rate of dividend on each ordinary share of Rs. 250 till 1925 comes to about Rs. 16 per share, i.e., a little above 6 per cent.

72. There are no debentures.

73. Nil.

74. Rs. 1,00,000 to Rs. 1,50,000.

75. The two forms are filled in as suggested.

76. Very often, owing to accumulation of stocks, capacity had necessarily to be curtailed whereby the cost of labour per case was particularly high. If full capacity is turned out a saving of 30 per cent. is expected.

77. No.

78. No.

79. $2\frac{1}{2}$ per cent. on buildings and $6\frac{1}{2}$ per cent. on machinery. We consider these rates not unsatisfactory.

80. (a) Rs. 10,767.

(b) Rs. 3,704.

81. (i) Rs. 1,00,000.

(ii) Rs. 1,50,000.

82. It is not necessary to borrow any additional capital.

83. The question of paying interest does not arise so far as we are concerned.

84. Rs. 1,00,000 working capital.
 Rs. 15,000 cost of one month's output.
85. Rs. 25,000 to Rs. 30,000. One month normally elapses between production and payment.
86. It is necessary to hold large stocks of raw materials worth about Rs. 60,000.
87. There is no head office other than the office of the local management. It is under the control of a managing agent.
88. (i) Nil.
 (ii) Rs. 18,000 to Rs. 20,000.
89. The managing agent draws 4 per cent. commission on sales and Re. 0-0-11 as bonus per one gross of matches manufactured.
90. (i) Nil.
 (ii) Re. 0-1-8 per gross. This will remain unchanged irrespective of the output.
91. We have got only ordinary shares and we consider 10 per cent. a fair return.
92. (a) and (b) 9 per cent.

93. Owing to very critical state in which the industry is placed on account of Swedish competition, investors will generally be shy before risking their capital unless high rates of interest are guaranteed. It is reported that the Swedish Match Company which is undoubtedly a sound concern offered 8 per cent. return before issuing their shares in the London market. It is therefore absolutely necessary to assure a very high return to intending subscribers to attract their capital in match industry.

94. A. It is an admitted fact that India is rich in forests. There are very large supplies of suitable wood in Sunderbans (Bengal). Assam also abounds in suitable wood. According to a Government expert, Bihar and Orissa possess a sufficient wood supply and a Government model factory is already started at Patna. There are further large supplies of Simal available in United Provinces. Poplar, Pine and Willow wood are known to exist in Punjab and Kashmir. Malabar forests in Madras Presidency are known to be full of trees for match manufacture. In Bombay Presidency, we have been drawing supplies since the last thirty years which prove that our presidency is not without suitable match trees. There is therefore no question of India being without match trees for her growing industry.

The question of cheap power varies with different provinces. It may be observed that the cost of power is in no way an obstacle to the growth of the industry. For instance, Tatas have launched upon a big electrification scheme in Western India for supplying power at cheap rates. The Mandi Hydro-electric scheme in Punjab guarantees power there at cheap rates while Kashmir supplies electricity at or under Re. 0-0-6 per unit. The scheme of electrification is in progress in different parts of the country and its cheap supply is assured. Besides, coal abounds in Bengal and Central Provinces and it is available at reasonable prices. There is therefore no doubt of power being available at cheap rates.

As regards labour supply, we may say that there is plenty of it in all provinces at low rates. The earnings of Indian labourers are the lowest in the whole world. Indian labour is also quick in picking up technical knowledge. The cost of labour is a very encouraging factor for the Indian match industry as compared with labour costs in other parts of the world. This is bound to be an important factor in enabling Indian matches to withstand world competition after a certain period.

As to market, it is well known that there is a large home market controlled by foreigners at present.

B. If one carefully studies the history of industrial development of India, one will find that in spite of special efforts, the match industry was not able to develop at all and it was only after the duty on imported matches was raised to Rs. 1-8 per gross that the Indian enterpriser got an appreciable measure of encouragement. The cause as to why this industry could not develop in spite of natural advantages is apparent. Foreign countries have since long been masters of this industry and the trade connected therewith. They own large organisations and facilities both natural and commercial. Their gigantic financial resources after their thriving experience for scores of years have helped them to reduce their costs so as to ensure their control on the world market. They can easily kill a new venture by foregoing their profits or even drawing on their reserves and losing a little. Indian enterprisers are thus faced with very powerful competitors and unless they receive substantial support and encouragement from their Government, there is little or no chance of their being able to withstand world competition. Considering the rapid strides which the industry has made within its brief existence and the unsuccessful ventures prior to the levy of the present rate of duty prove most conclusively that the indigenous match industry in India cannot develop without the requisite protection.

C. In order to meet foreign competition, Indian match manufacturers must bear in mind two chief points, *viz.*, (1) to reduce cost of production and (2) to make the products such as can favourably compare with foreign imports. The industry being of recent growth, a considerable time is spent in preliminary enquiries, erection of factories and arrangements incidental to manufacture and marketing. The cost of indigenous match manufacturers is therefore high and the finished product less attractive. These can be improved with economic and careful work. It may be worth while to study the following facts showing the handicaps facing the industry at present and the prospects which may be anticipated :—

- (a) Chemicals and paper are largely imported as they are not manufactured in the country as yet. The chemical industry in India is yet in infancy which has a promising future before it and it is reasonably hoped that the match industry during its course of development will ensure an impetus to the manufacturers of superior chemicals in India. The various efforts to manufacture paper in India on extensive and economic lines give hopes of expecting a certain economy in this line. Paper and chemicals in due course will form material factors in determining the competitive cost of Indian matches for world production.
- (b) The industry being in initial stages, technical knowledge has necessarily to be obtained at considerable cost. However with the development of the industry in the country and the training given to Indians, expert technical knowledge will be obtainable at a much reduced cost. With the experience gained of Indian conditions as applied to this industry, much can be done to improve and organise the working with a view to economy and efficiency.
- (c) Labour which is both plentiful and cheap in India will after sufficient training be a material factor in bringing down the cost.
- (d) The question of inland tariff for raw materials and finished products require careful and sympathetic consideration. The growth of match industry ensures to railways additional sources of revenue on account of transportation of all raw materials incidental to manufacture. There will be a material reduction in cost and the railways too will be helping their revenue by giving concession to Indian match manufacturers.
- (e) Timber which is of chief importance if planted in certain areas of the forests regularly can be cut and carted at low charges. Special

transport facilities in shape of low railway freight if given will much help Indian manufacturers to bring down their prices.

95. (a) and (b) Yes.

96. Yes.

97. Indian industry practically receives no protection as the rates of matches have come to a figure prevailing before the duty on matches was raised in 1921. The advantages of transport charges between the country of production and the port of entry are more than counterbalanced by the heavy freight paid on papers and chemicals imported for match manufacture.

98. The present duty on imported matches is adequate in our opinion to stimulate match industry.

99. (1) Suitable measures should be adopted for increased facilities by railway and steamer transport of Indian match wood throughout the country.

(2) Proper control should be exercised on the import of foreign matches from Native States to British territories.

(3) Handicaps in the shape of extraordinary duties levied by Native States upon matches manufactured in British India should be removed.

(4) Suitable wood which exists in abundance in Indian forests and which is the chief raw material in the manufacture of matches must be made available to Indian match manufacturers by the Government taking up the research work in all seriousness.

(5) Import duty on match chemicals and paper should be lowered.

(6) Special reduced rates on ready made Indian matches must be given by different railways.

(7) Special protection should be given against foreign competition of the Swedish syndicate which is not a *bond fide* concern and whose activities should not be allowed to be successful. A discriminating excise duty on the products of factories financed wholly or mainly by foreign capital should be levied but under no circumstances any burden should be imposed on the factories run purely by Indian capital and Indian enterprise.

* * * * *

Copy of match wood concessions granted.

SUBJECT :—*Match Industry.*

No. 3824 of 1925-26, dated Poona, the 14th November 1925.

From—A. G. Edie, Esq., Chief Conservator of Forests, Bombay Presidency,

To—The Gujarat Islam Match Manufacturing Company, Limited, Kankaria Road, Ahmedabad.

SIRS,

With reference to your petition, dated 3rd August 1925, to Government, I have the honour to inform you that Government have decided that the Company should be allowed to remove the wood required for match manufacture and charged royalty at the rate of six annas per cart load from the forests of the Panch Mahals Division and four annas per cart load from the Dangs (Surat) forests. This arrangement will be in force for ten years, i.e., 1925-26 to 1934-35.

A statement showing amounts of dividends distributed every year and also the percentage on the original value of the share, viz., Rs. 250 ordinary (fully paid up).

Year.	Amount of dividends paid per share.			Percentage on the original value of the share.
	Rs.	A.	P.	
1905	5	0	0	2 per cent.
1906	4	0	0	1½ "
1909	5	0	0	2 "
1910	10	0	0	4 "
1911	10	0	0	4 "
1912	10	0	0	4 "
1913	13	0	0	5½ "
1915	15	0	0	6 "
1916	12	0	0	4½ "
1917	15	0	0	6 "
1918	20	0	0	8 "
1919	20	0	0	8 "
1920	30	0	0	12 "
1921	40	0	0	16 "
1922	50	0	0	20 "
1923	70	0	0	28 "
1924	71	0	0	28½ "
1925	71	0	0	28½ "
	471	0	0	

FORM I.

Statement showing total expenditure on the production of Matches during the last four years.

(Vide Question 75.)

	1922.			1923.			1924.			1925.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1. Cost of wood for splints and veneers	21,659	8	0	20,864	14	8	31,067	9	10	29,061	3	7
2. Cost of paper	25,278	6	6	22,871	11	7	22,839	9	0	29,469	15	8
3. Cost of chemicals	36,809	3	1	41,820	2	11	43,452	5	1	40,222	6	11
4. Cost of other raw materials	17,181	8	9	10,206	12	8	12,338	1	9	6,483	9	10
5. Factory labour	69,166	1	0	75,433	12	6	65,237	9	6	80,652	5	6
6. Power and fuel	6,922	1	9	2,927	14	3	5,027	11	9	3,379	0	2
7. Ordinary current repairs and maintenance of buildings, plant and machinery.	9,319	14	8	18,534	12	2	6,599	0	2	10,781	6	8
8. General services, supervision and local office charges .	20,036	12	2	24,258	4	7	22,111	1	6	22,849	6	0
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc.	12,705	4	11	18,368	13	7	10,796	10	6	10,239	2	0
10. Cost of packing cases	4,945	3	5	7,199	1	2	8,350	0	3	9,619	6	1
TOTAL	2,24,024	0	3	2,40,486	4	1	2,27,819	11	4	2,42,757	14	5
Total production of Matches for the year	3,067 cases each of 50 gross.			3,609 cases.			3,547 cases.			4,107 cases.		

FORM II.

Statement showing works cost per gross of matches.

(Vide Question 75.)

	1922.	1923.	1924.	1925.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of wood for splints and veneers	0 2 3	0 1 10	0 2 10	0 2 3
2. Cost of paper for labels and wrapper	0 2 8	0 2 0	0 2 1	0 2 4
3. Cost of chemicals	0 3 10	0 3 9	0 3 11	0 3 1
4. Cost of other raw materials	0 1 9	0 0 11	0 1 1	0 0 6
5. Factory labour	0 7 3	0 6 8	0 5 1	0 6 4
6. Power and fuel	0 0 8	0 0 3	0 0 6	0 0 3
7. Ordinary current repairs and maintenance of buildings, plant and machinery.	0 1 0	0 1 6	0 0 7	0 0 11
8. General services, supervision and local office charges .	0 2 1	0 2 2	0 2 0	0 1 9½
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc.	0 1 4	0 1 7	0 0 11	0 0 9½
10. Cost of packing cases	0 0 6	0 0 8	0 0 9	0 0 9
TOTAL	1 7 4	1 5 4	1 3 9	1 3 0
Credit for materials recovered (if any)	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>
NET TOTAL	1 7 4	1 5 4	1 3 9	1 3 0
Total production of Matches for the year	3,067 cases each of 50 gross.	3,609 cases.	3,547 cases.	4,107 cases.

Messrs. Adamjee Hajee Dawood and Company, Limited, Rangoon.

(1) *Replies to the Questionnaire.*

1. Adamjee Hajee Dawood & Company started business in the year 1914 and was converted into a private limited liability concern and registered at Rangoon in July 1920. Our firm is thus a private registered company.

Our match factory was started in the year 1924.

2. The capital invested in our firm is wholly Indian.

The total number of Directors is 6, all of whom are Indians.

We are at present employing in our factory two Europeans, both in the capacity of machinery experts.

3. Our factory undertakes the whole process of manufacture.

4. Our factory commenced to manufacture matches on the 15th February 1924.

5. The full capacity of our factory as at present equipped is for the manufacture of 6,000 gross of boxes of matches per day of 10 hours.

6. The dimensions of the match boxes manufactured by us and the average number of matches in each are as shown below:—

Size.	Dimensions.	Average No. of splints in each box.
1. Full size	58 mm. × 37 mm. × 18 mm.	80
2. $\frac{1}{2}$ "	49 " × 31 " × 15 "	55
3. Half "	47 " × 33 " × 16 "	70

7. We have stated in our reply to question No. 4 above that our factory commenced to manufacture matches in February 1924. We state below the actual output of our factory since that date.

Year.	Output.
1924	356,608 gross of boxes.
1925	858,208 " " "
1926	1,101,716 " " "

8. Our factory is situated at Pazundoung, Rangoon.

(a) Yes.

(b) Yes.

(c) Yes.

(d) Yes.

In our opinion all the factors mentioned in (a), (b), (c) and (d), under this question are equally important.

9. We agree that Indian manufactured matches made out of indigenous wood are not so attractive in respect of appearance and finish as imported matches owing to the slightly dark colour of the wood. It is also possible that Indian manufactured matches may be slightly inferior in respect of the composition of chemicals, and if so, we believe that with increasing experience, it is not difficult to remedy this defect.

(b) Apart from the question of quality, there exists a certain amount of prejudice against Indian matches generally. This prejudice arose owing to inferior quality of matches having been put on the market in 1923, and 1924 when the industry was entirely in an infant stage. But since 1925, the quality has been improving and with the improvement in quality the prejudice is gradually disappearing, if it has not altogether disappeared. We may add that not only no prejudice exists against Indian matches at present, but on the other hand, preference is actually given to such matches in certain markets.

RAW MATERIALS.

Wood.

10. In the years 1924 and 1925 we imported wood from Japan and a small quantity from Europe for the manufacture of splints only. The last lot of foreign wood was received in January 1925. Since then, however, as we got concessions from the Local Government to extract wood from Reserve forests, we have entirely stopped importing foreign wood and are now relying wholly upon indigenous wood.

11. We specify below the kinds of wood used by us for the manufacture of splints, veneers and packing cases:—

(a) Splints:—

<i>Local Names.</i>	<i>Botanical Names.</i>
Sawbya	Tetrameles nudiflora.
Maulettanshe	Sarcocephalus cordatus.
Gwe	Spondias mangifera.
Yemane	Gmelina arborea.
Taung-meok	Alstonia Scholaris.
Setkadon	Trewia Nudiflora.
Odein	Ehretia Laevis.
Kuthan	Hymenodictyon Excelsum.
Mondaing	Cycas Siamensis.
Lelun	Sapium Baccatum Roxb.
Butalet	Aegiceras Majus.
Taung-Kathit	Erythrina Stricta.

(b) Veneers:—

Letpan	Bombax Malabaricum.
Didu	Bombax Insigne.
Boneza	Albizzia stipulata.
Sinin-thayet	Mangifera caloneura.
Taung-thayet	Irvingia Oliveri.
Pandama	Melia sp. (possibly M. birmanica).
Lelun	Sapium Baccatum Roxb.
Butlet	Aegiceras Majus.
Taung-Kathit	Erythrina Stricta.
Myetcho	Panicum Crus-galli.
Tayaw	Encoecaria Agallocha.
Pine . . . . .	.....

(c) Packing Cases:—

Sawbya	Tetrameles nudiflora.
Maulettanshe	Sarcocephalus cordatus.
Gwe	Spondias mangifera.
Yemane	Gmelina arborea.
Bonmeza	Albizzia stipulata.
Sinin-thayet	Mangifera caloneura.
Taung-thayet	Irvingia Oliveri.
Kuthan	Hymenodictyon Excelsum.
Setkadon	Trewia Sylvatica.
Taung-meok	Alstonia Scholaris.

12. We have found indigenous wood as satisfactory as imported wood for the manufacture of veneers and packing cases. So far as the manufacture of splints is concerned, we find that the indigenous wood used by us so far is slightly darker and hence the finish is not as perfect and attractive as that on splints made from imported wood. We have, however, every reason to believe that if proper research work is carried on under the direct control of the Government and with an avowed object, it is not impossible to locate a supply of that particular species of wood from which attractive splints can be manufactured.

13. (a) Our annual requirement of wood is approximately 11,000 tons—5,000 gross per day.

(b) Approximately 13,500 tons.

14. At present about 32 c.ft. of wood is required by us to manufacture one hundred gross of finished matches.

15. The standard size of the packing cases used by us is:—

40" x 27" x 24" for full size.

30" x 24" x 24" for $\frac{3}{4}$ size.

5 c.ft. of wood is required for one full size packing case.

16. Our main supplies are at present drawn from the Mahuya and Paunglin Reserves which were leased to us by the Local Government in 1926 for a period of 15 years. These Reserves are situated about 60 miles by road from Rangoon and about 120 miles by stream. We are also at present purchasing a part of our supplies from contractors who extract from Reserves around Wanetchaung, Pugyi, Okkan,—distances ranging from 20 to 60 miles by rail.

In the past we also draw supplies from contractors at Myitkyina, Mandalay, Northern and Southern Shan States and stations on the main line between Mandalay and Rangoon, Martaban and Rangoon, and between Prome and Rangoon—distances ranging from 25 to 660 miles by rail.

17. The trees in our forest are felled with axes by skilled wood-cutters and dragged by elephants and buffaloes to the banks of floating streams in the vicinity and rafted down right up to our factory.

Supplies from contractors are felled and handled in the same manner but are brought down to our factory by rail or water.

18. We pay royalty to Government at the rate of Rs. 12-8-0 per ton of 50 cubic feet of wood extracted from the Mahuya and Paunglin Reserves. The contractors from whom we purchase a part of our supplies pay royalty at varying rates ranging from Rs. 4 to Rs. 9 per ton of 50 cubic feet.

19. It is not possible to give the cost under separate heads as it differs very widely. But the cost per ton of 50 cubic feet delivered at our factory is between Rs. 35 and Rs. 40.

20. We consider the terms of our concession favourable.

A copy of our license is herewith attached.

21. We have found the supply of wood constant in respect of quality.

22. We have found the supply of wood constant in respect of quantity.

23. In view of our reply to question No. 22 above, this question does not arise.

24. We do consider that our factory is assured of a sufficient supply of suitable wood for a reasonably long period.

25. As the wood extracted from our forest is rafted down the stream right up to our factory, we have not to use any other means of transport and hence the question of concessions in the matter of freight does not arise.

We may state, however, that in the past we got a very small concession from the Burma Railways,

Other raw materials.

- 26 and 27. Statement marked "A" is filled herewith.
28. (a) Statement marked "B" is attached.
- (b) All the articles mentioned in statement marked "A" are imported by us from foreign countries.
- (c) *Nil.*
29. We do not consider ourselves competent to express any opinion on the points raised.

Labour.

30. We have experienced absolutely no difficulty in securing sufficient labour for the extraction.
31. We do not consider that the employment of skilled labour imported from abroad is at all necessary except in so far as machinery experts are concerned.
32. Our factory did not employ the two experts referred to in our reply to question No. 32 from the very beginning. They were employed later on in the years 1925 and 1926 respectively.
- Indian workmen are being trained in skilled work under the guidance and supervision of the two experts.
34. The factory employs 1,500 Indian workmen out of whom about 800 are males and about 700 females. There are no children employed in our factory. Males daily earn on an average Re. 1-4 and females Re. 1 each.
35. The Indian labour employed in our factory is entirely drawn from the vicinity of the factory.
36. We have found by experience that Indian labour improves with training. We have, however, no record to support our contention but we find their work shows increasing efficiency day by day.
37. We have erected barracks for some of our labourers who were in need of housing accommodation. The rest stay in the vicinity of the factory in their own dwellings.

We also supply free medical aid to our workmen.

Power.

38. The power used in our factory is derived from electricity.
39. Our electric power is obtained from the Rangoon Electric Tramway and Supply Company Limited at the rate of 0-8 anna per unit. We are not aware of rates obtaining elsewhere in India or in other countries.
40. The question does not arise in view of our reply to question No. 33 above.
41. We are using steam for drying and heating splints, veneers, boxes, etc. As, however, we are exclusively using waste wood for the purpose we have kept no account of the quantity used.
- The number of units required per output of 100 gross of boxes is approximately Rs. 2-12.
42. The question does not arise with us.
43. We are able to meet the whole of our requirements of wood for fuel purposes from waste wood in our factory.

Market.

44. 14 million gross boxes approximately.
45. Yes. In our opinion, the demand for matches is likely to increase as time goes on. Because the population of India is daily increasing and matches being an article of necessity, their consumption is bound to increase with the growth of population. Moreover, the main consumption of matches is for smoking purposes and the smoking habit is increasing generally, and

the number of smokers is bound to increase with the increase in population. It therefore follows that the demand for matches is bound to increase in future.

46. Our principal markets are situated in Tavoy, Mergui, Akyab, Chittagong, Calcutta, Berhampur, Cocanada, Madras, Cuddalore, Tuticorin, Cochin and Calicut.

We show below the distances which separate distances which separate the abovementioned places from our factory:—

	Miles.
Tavoy	258
Mergui	459
Akyab	479
Chittagong	635
Calcutta	779
Gopalpore	557
Cocanada	868
Madras	1,000
Cuddalore	1,155
Tuticorin	1,407
Cochin	1,535
Calicut	1,645

Our matches are also being distributed in almost all the parts of Burma by rail as well as to river ports by steamer and their distances from our factory vary a great deal.

47. There are no such markets in India in which owing to their distance from the ports, we can more easily compete against the foreign manufacture.

48. (a) As far as Burma is concerned the markets are served by imported matches to the extent of approximately 45 per cent. while indigenous matches make up the balance of the total requirements.

(b) As far as Burma is concerned we have reasons to suppose that there is a certain amount of illicit importation of matches into the country over the Chinese frontiers. Such illicit imported matches are being sold in almost all places in Shan States.

Competition.

49. Competition from Sweden is keenest and Japan also competes to a certain extent, but on account of the existing duty on imported matches we are able to meet the competition in Burma. We also export small quantity to Indian markets.

50. Even with the existing duty, imported matches do compete with Indian matches manufactured from Indigenous wood as well as with Indian matches manufactured from Imported woods.

51. (1) Government's Customs Department records will show the exact figures of prices at which the imported matches entered the country. For average selling prices of the matches imported by us we attach herewith a statement marked C.

(2) We commenced the manufacture of matches from indigenous wood only since 1925 and are thus only in a position to give you prices for the last two years which were as follows:—

	Rs.
1925	1-13 per gross.
1926	1-11 " "
Current price full	1-8 " "
" " half	1-3 " "

(3) We only manufactured matches from imported wood during the year 1925. The average selling price per gross was Rs. 1-15.

The statement attached marked C gives details of c.i.f. prices in Rupees in so far as import from Japan is concerned. At that time the import from Europe was only on a very small scale.

52. It is obtainable from merchants or importers who import direct from foreign sources.

53. We are not in a position to say definitely whether the prices at which foreign producers sell for export to India are unremunerative, or leave only a small margin of profit or are exported at a price below the lowest price current in the home market. We, however, quote below the prices of imported matches under the different rates of import duty and leave your Board to draw their own conclusions:—

Rate of duty.	Full size selling	Half size selling
	price per gross.	price per gross.
	Rs. A. P.	Rs. A. P.
5 per cent.	0 14 0	0 12 0
Rs. 0 12 0 per gross.	1 10 0	1 8 0
„ 1 8 0 „ „	2 10 0	2 4 0

54. (a) Yes.

(b) Yes.

(c) Although ordinary labour is approximately cheaper on the whole it is more costly on account of its inefficiency.

(d) Yes.

(e) Yes.

(f) Yes.

(g) Yes. We have also to keep other materials to last for at least six months in stock.

(h) Yes.

(i) Yes. The industry is comparatively a new one and the continuance of the present protection is not yet assured. Hence capitalists naturally hesitate to go in for this industry under the present uncertain conditions.

55. We consider (a) as an initial disadvantage, (b), (c), (d) and (e) as temporary while the rest as permanent except (f) and (h) which might be remedied if the Railways and Steamship Companies can be persuaded to reduce the freight on finished goods and Government to reduce Customs duty on imported raw materials.

In our opinion the temporary disadvantages should not operate for more than ten years at the most.

Equipment.

56. We consider our mill sufficiently large as an economic unit of production to ensure economy.

In our opinion 700 gross boxes per day would be the smallest unit of production which can be operated economically under present day conditions.

57. Approximately 30 per cent. of our total capital outlay invested in our match business has been incurred on plant and machinery.

58. (a) A list containing a brief description of our plant and machinery stating the dates on which the various machines were first brought into use is attached herewith. All principal match making machines are made by the well-known match-machine maker, Mr. A. Roller of Berlin, Germany.

(b) No special arrangements were made.

59. (a) Yes.

(b) Nil.

60. (a) We contemplate the replacement of frame filling machines by automatic simplex machines if the experiments we are carrying out at present prove satisfactory and economical.

(b) Yes. We have already imported and kept in stock ready for erection a complete suitable set of match-making machinery with a capacity of manufacturing 3,000 gross of boxes per day of 10 hours. But we cannot erect the same until the results of the present enquiry are known.

61. Almost all parts of machinery can be made in India.

Capital Account.

62. The block value of our property as it stood in our books at the end of the last complete year ending on 30th June 1926 is as follows:—

(a) Nil.

(b) Rs. 2,75,241-5-0.

(c) Rs. 3,79,555-4-0.

(d) Rs. 9,62,709-14-6.

(e) Rs. 18,12,243-1-0.

63. The figures given above represent the actual cost of the various assets.

64. The question does not arise.

65. We estimate that the present day cost of buildings for a factory having the same output as our present factory would practically be the same while the cost of machinery would be somewhat less on account of a general reduction in the prices of match-making machinery.

66. A statement showing particulars of the sums spent on the purchase of plant and machinery from the very commencement to date and the rate of exchange at which funds were remitted is herewith attached.

67 to 73 do not arise.

74. We are not at present in a position to say what additional capital would be required to carry out replacements contemplated by us as it depends entirely on the results of our present experiments.

Works cost.

75. The forms duly filled up are attached herewith.

76. During the year 1924 when our factory was working at less than its full capacity the works cost was naturally high on account of inexperience of the workmen. The cost was high under almost all the heads. During 1925 on account of an increase in production and the fact that the workmen were gradually being trained there was an all-round reduction in cost. During 1926 the cost was further reduced.

77. No.

78. No.

OVERHEAD CHARGES.

(I) Depreciation.

79. The Income-tax authorities allow $6\frac{1}{2}$ per cent. on machinery and $2\frac{1}{2}$ per cent. on buildings. The rates allowed for machinery are not suitable. We suggest $12\frac{1}{2}$ per cent. because match-making machinery is particularly so delicate.

80. The sum required annually for depreciation at income-tax rates on our total block account would be Rs. 75,000 if the assets are valued at cost and approximately Rs. 57,000 if the assets are taken at their value after deducting all depreciation written off up to date.

(II) Working Capital.

81. The working capital which our match company requires:—

(1) According to its present output approximately Rs. 15 lakhs.

(2) According to the output equivalent to its full capacity Rs. 20 lakhs.

82. Yes. The company is able to provide all the working capital it requires. It is not necessary to borrow any capital for the purpose.

83. This question does not arise.

84. The cost of one month's output at the present rate is approximately Rs. 1,75,000.

85. Approximately Rs. 5 lakhs. A period of about 4 months elapses between production and payment.

86. We find it necessary to hold large stocks of raw materials worth approximately Rs. 3 lakhs.

(III) *Agent's commission and Head Office expenses.*

87. The company has its own office in Rangoon. It is not under the control of a firm of managing agents.

88. The question does not arise.

89. The question does not arise.

90. The question does not arise.

Manufacturer's profits.

91. 12 per cent.

92. 9 per cent. on debentures and 10 per cent. on preference shares.

93. 12 per cent.

Claim for protection.

94. We do claim that all the conditions laid down by the Indian Fiscal Commission are satisfied in the case of the match industry.

(a) We do claim that the industry possesses natural advantages, such as an abundant supply of raw materials, cheap power, a sufficient supply of labour and a large home market.

(b) We claim that without the help of protection the industry is not likely to develop at all.

(c) We claim that the industry will eventually be able to face world competition without protection.

The reasons for our opinion expressed above are fully explained in our letter dated 30th December 1926, to the Tariff Board, a copy of which is attached herewith.

95. (a) Yes.

(b) Yes.

96. Yes.

97.

98. The amount of the protection which we consider necessary is Rs. 2 per gross; because at the present rate of Re. 1-8 per gross foreign imports still compete with indigenous matches and it is the sole aim of the foreign manufacturers to cripple the Indian industry which is still in its infancy.

99. We recommend the following forms of assistance other than a protective duty:—

(a) Efforts should be made by Government to grow suitable species of wood in India and Burma.

(b) In Burma, instead of inviting tenders for leasing forests Government should fix the minimum rate of royalty.

(c) Railway freights should be reduced for the transport of wood from forests and finished goods into the interior.

(d) The freight by sea on matches exported from Burma to India is high at present and should be reduced.

(e) The import duty on chemicals, papers, etc., should be reduced.

(f) The rates of municipal taxes are too high at present and should be reduced.

(g) A discriminating excise must be levied on the products of those factories which are financed and controlled by foreigners. We submit that the object of any protection that may be granted to an industry in India should be to encourage the development of that particular industry with Indian capital under Indian control. We further submit that it is not in the interests of this country that foreigners are allowed to erect factories in India under the wall of protection. So far as the match industry is concerned, we are afraid that it has been the policy of a foreign trust to start match factories in India and undersell the products of Indian factories—may be even at some sacrifice—with the object of compelling the Indian manufacturers, who are beginners in the line and who have not sufficient financial backing to withstand the competition of the trust with long technical experience and unlimited financial resources, to retire from the field. When and if this object is achieved the trust may buy up the factories belonging to Indians as it has already done in some principal countries of the world and thus make India entirely dependent upon matches manufactured by factories under its control, supplemented by imported foreign matches. Thus the trust will have a practical monopoly of the match trade in India and will consequently be in a position to dictate its own price to the detriment of the consumers.

Statement "A" showing annual requirements of raw materials, also average requirement per 100 gross of boxes of matches.

Raw materials other than wood.	Total annual requirement.	Requirement per 100 gross of boxes of matches.
	Lbs.	Lbs.
Amorphous Phosphorus	17,000	1½
Chlorate of Potash	194,000	15
Antimony Trisulphide	10,300	¾
Manganese Dioxide Black	14,000	1
Bichromate of Potash	6,500	½
Glass Powder	67,700	5½
Sulphur Flower	24,000	2
White Zinc	15,700	1
Glue	28,400	2½
Iron Oxide	24,400	2
Potato Starch	96,000	8
Paraffin Wax	215,000	17
Printing Inks	3,600	¾
Printing Papers	30,700	2½
Zinc Sheets	180,000	14
Blue Match Paper	324,000	25
Green Match Paper	132,000	10
Brown Packing Paper	60,000	5

Statement "B" of raw materials imported from abroad, their price, customs duty, etc.

Raw materials.	Country of origin.	C.I.F. Bangoon price.	Per	Transport charges to factory per ton.
				Es.
Amorphous Phosphorus . . .	Great Britain	£195-210	Ton	5
Chlorate of Potash	Germany . .	£28-35	Ton	3
Antimony Trisulphide . . .	Do.	£4-10-0	100 kg.	4
Manganese Dioxide	Do.	£22-23	Ton	3
Bichromate of Potash . . .	Great Britain	£40-42	Ton	4
Glass Powder	Germany . .	£7-8	Ton	3
Sulphur Flower	Do.	£12-13	Ton	
	Japan	Yen 9-10	100 kins	3
White Zinc	Germany . .	£38-40	Ton	4
Glue	Do.	£55-65	Ton	3
Iron Oxide	Japan	Yen 7-20	100 cattiee	3
Potato Starch	Holland . . .	£16-18	Ton	3
Paraffin Wax	Great Britain	Rs. 21-28	Cwt.	Nil.
Printing Inks	Japan	Yen 2,500	Ton	4
Printing Papers	Do.	„ 450	Ton	3
Zinc Sheets	Belgium . . .	£43-48	Ton	4
Blue Match Paper	Sweden . . .	£25-23	Ton	3
Green Match Paper and Packing Paper.	Do.	£21-23	Ton	3

NOTE.—Customs duty on all the above articles except sulphur and printing inks is charged at the rate of 15 per cent. There is no customs duty on sulphur; customs duty on printing inks is charged at the rate of 5 per cent.

STATEMENT "C."

Years.	C.I.F. price per 50 gross.	Duty.	Landing charges.	Average selling price.
	Rs. A. P.		Rs. A. P.	Rs. A. P.
1918-19 . . .	106 0 0	5%	0 6 0	115 0 0
1919-20 . . .	88 0 0	5%	0 6 0	100 0 0
1920-21 . . .	73 8 0	5%	0 6 0	95 0 0
1921-22 . . .	75 0 0	As. 12 per gross	0 6 0	135 0 0
1922-23 . . .	77 0 0	Rs. 1-8 per gross	0 6 0	159 0 0
1923-24 . . .	50 0 0	„ „	0 6 0	135 0 0

STATEMENT "D."

The 20th January 1926.

Mr. Robertson's estimate.

BONMEZA.

	Rs. A. P.
Planting charges per acre for 7 years	20 0 0
Supervision charges per acre for 8 years	16 0 0
TOTAL	36 0 0
Compound interest for 15 years	10 0 0
TOTAL	46 0 0

1 acre would yield 20 tons of timber—

	Rs. A.
Cost of 1 ton of timber	2 8
Government royalty per ton	6 0
Total cost per ton	8 8

Within 13 years the girth of the log will be 6'

STATEMENT " E. "

Description of our plant and machineries.

Nos.	Names of Machines.	Dates on which they were first brought into use.
<i>Section ' A. '</i>		
2	Winches	March 1924.
1	Winch	June 1924.
2	Cross Cut Saws	October 1924
3	Circular Saw Benches	June 1925.
3	Knife Grinding Machines	October 1924.
10	Wood Peeling Machines (6 for Boxes and 4 for Splints)	October 1924.
6	Chopping Machines (4 for Boxes and 2 for Splints)	October 1924.
2	Paste Grinding Cones	October 1924.
	Inner Drawer Machines	October 1924.
20	Inner Drawer Machines	January 1926.
20	Outer Case Machines	October 1924.
20	Labelling Machines	March 1924.
4	Box drying apparatus (for Inner and Outer)	October 1924.
2	Local made veneer chopping apparatus	June 1925.
6	Splints drying apparatus	October 1924.
2	Splints Drying and Polishing Drums	February 1927.
5	Splints Polishing Drums	October 1924.
4	Splints cleaning machines	October 1924.
2	Splints levelling and filling machines	December 1924.
1	Splints levelling apparatus	October 1924.
<i>List of Machines in Section " B. "</i>		
30	Frame filling machines	March 1924.
16	Emptying machines	March 1924.
2	Waste splints selecting machines	March 1924.
3	Splints levelling machines	October 1924.
1	Simplex machine	December 1926.
2	„ machines	February 1927.
16	Box filling machines (8 full size and 8 1/4th size)	March 1924.
6	Side painting machines	March 1924.

Nos.	Names of Machines.	Dates on which they were first brought into use.
<i>List of Machines in Section "B"—contd.</i>		
6	Packetting machines	March 1924.
2	Side paint grinding cones	June 1925.
2	" " " drums	March 1924.
2	Japanese splints cleaning machines	February 1927.
<i>List of Machines in the Workshop.</i>		
1	Lathe	March 1924.
1	Lathe	June 1926.
1	Shaping Machine	June 1926.
2	Drilling Machines	March 1924.
1	Pipe threading machine	March 1924.
1	Hacksaw machine	March 1924.
1	Tool sharpening machine	March 1924.
<i>In Chemical Department.</i>		
2	Glue boiling apparatus	March 1924.
1	Mixing machine (Japanese)	March 1924.
4	Sifting apparatus	March 1924.
6	Chemicals grinding cones	March 1924.
3	Paraffining apparatus	March 1924.
8	" "	August 1925.
<i>In Labels Printing Department.</i>		
4	Label printing presses	April 1926.
1	Label cutting machine	April 1926.
1	" " "	January 1927.
1	Knife grinding machine	August 1926.
<i>Other Machinery.</i>		
2	Boilers	February 1924.
1	Chimney	February 1924.
1	Artesian well	February 1924.
2	Air Compressors	February 1924.
2	Worthington Feed Pumps	February 1924.
6	Boiling tanks . . . . .	...

STATEMENT " F. "

Statement of particulars of sums spent on purchase of plant and machinery from 1922 to 1926.

Date.	Value in Sterling.		Rate of Exchange.	Amount in	
	£	s. d.		Rs.	A. P.
1922.					
24th October 1922	9,750	0 0	S. 1-3 $\frac{1}{8}$	1,49,760	0 0
1923.					
24th February 1923	222	0 0	S. 1-4 $\frac{1}{16}$	3,317	0 9
28th June 1923	14,217	6 11	S. 1-4 $\frac{3}{16}$	2,12,017	14 0
10th November 1923	15,776	13 4	S. 1-4 $\frac{3}{16}$	2,24,795	9 0
15th December 1923	4,809	12 5	S. 1-5 $\frac{1}{16}$	67,159	13 3
5th December 1923	1,016	5 6	S. 1-4 $\frac{3}{16}$	14,453	11 0
TOTAL	36,041	18 2		5,21,744	0 0
1924.					
13th June 1924	272	0 0	S. 1-4 $\frac{2}{16}$	2,459	14 0
15th August 1924	95	0 0	S. 1-4 $\frac{3}{16}$	1,348	10 0
24th November 1924	112	10 2	S. 1-6 $\frac{1}{16}$	1,512	10 0
12th December 1924	856	4 7	S. 1-5 $\frac{1}{16}$	11,456	2 0
29th December 1924	31	0 0	S. 1-6 $\frac{5}{16}$	419	13 0
TOTAL	1,366	14 9		17,197	1 0
1925.					
3rd January 1925	500	0 0	S. 1-6 $\frac{1}{16}$	6,653	10 0
21st April 1925	124	0 0	S. 1-5 $\frac{3}{16}$	1,699	0 6
4th May 1925	300	0 0	S. 1-5 $\frac{1}{16}$	4,085	4 0
15th May 1925	379	2 7	S. 1-5 $\frac{1}{16}$	5,072	11 0
25th May 1925	481	9 11	S. 1-5 $\frac{1}{16}$	6,442	4 0
20th June 1925	455	19 10	S. 1-5 $\frac{1}{16}$	6,069	5 0
1st July 1925	18	12 11	S. 1-5 $\frac{1}{16}$	262	5 0
3rd September 1925	150	0 0	S. 1-6 $\frac{5}{16}$	1,962	13 0
9th October 1925	30	0 0	S. 1-6 $\frac{1}{16}$	397	4 0
5th November 1925	1,788	0 0	S. 1-6 $\frac{5}{16}$	23,634	13 3
TOTAL	4,227	5 3		56,299	5 9

Date.	Value in Sterling.		Rate of Exchange.	Amount in		
	£	s. d.		Rs.	A.	P.
1926.						
28th January 1926	56	14 2	S. 1-6 $\frac{1}{2}$	750	14	9
23rd March 1926	91	5 1	S. 1-6	1,216	12	0
10th May 1926	1,592	6 11	S. 1-5 $\frac{3}{4}$	21,268	3	0
20th June 1926	9	11 6	S. 1-6 $\frac{1}{2}$	126	13	0
14th August 1926	1,700	0 0	S. 1-5 $\frac{3}{4}$	22,192	0	0
18th August 1926	240	18 2	S. 1-5 $\frac{3}{4}$	3,217	12	0
19th August 1926	1,536	0 0	S. 1-6 $\frac{1}{2}$	20,303	12	0
" " "	141	3 10	S. 1-6 $\frac{1}{2}$	1,869	9	9
26th August 1926	78	2 10	S. 1-5 $\frac{3}{4}$	1,041	1	0
11th September 1926	518	9 9	S. 1-5 $\frac{3}{4}$	6,925	3	0
12th October 1926	562	11 3	S. 1-5 $\frac{3}{4}$	7,513	14	0
14th November 1926	125	12 0	S. 1-6 $\frac{1}{2}$	1,660	4	0
" " "	562	0 2	S. 1-5 $\frac{1}{2}$	7,572	5	0
" " "	126	8 0	S. 1-6 $\frac{1}{2}$	1,670	13	0
TOTAL	7,941	3 8		97,329	4	6

STATEMENT "G."

Statement of machinery purchased locally from 1923 to 1926.

	Rs.	A.	P.
1923	22,000	0	0
1924	18,248	3	9
1925	11,272	1	9
1926	2,040	11	0
TOTAL	53,561	0	6

Summary.

	Rs.	A.	P.
1922	1,49,760	0	0
1923	5,21,744	0	0
1924	17,197	1	0
1925	56,299	5	9
1926	97,329	4	6
Local purchase	53,561	0	6
TOTAL	8,95,890	11	9

STATEMENT "H."

Statement showing total expenditure on the production of matches during the last two years from 1st July 1924 to 30th June 1925 and 1st July 1925 to 30th June 1926.

	1924-25.		1925-26.	
	Rs.	A. P.	Rs.	A. P.
(1) Wood for making splints, veneers and packing cases	2,48,142	9 3	3,51,875	3 0
(2) Cost of papers	33,228	2 6	68,031	2 0
(3) Cost of chemicals	1,05,385	3 9	1,69,049	7 6
(4) Cost of other raw materials	1,05,455	15 0	1,03,471	0 9
(5) Factory labour	3,09,111	14 3	5,50,261	15 6
(6) Power and fuel	35,944	15 6	51,787	4 9
(7) Ordinary current repairs, etc.	Nil		1,12,407	6 6
(8) General services, etc.	Nil		Nil	
(9) Miscellaneous, e.g., rent, Municipal taxes, Insurance, etc.	37,166	0 0	91,480	3 6
(10) Depreciation bad debts, etc.	83,625	6 0	95,000	0 0
TOTAL	9,58,060	2 3	15,93,363	11 6
Total production of matches for the year	517,750 gross		1,087,150 gross	

N.B.—The quantities given as manufactured by us in reply to question No. 7 represent the quantities manufactured during those calendar years.

STATEMENT "I."

Statement showing works cost per gross of matches.

	1924-25.		1925-26.	
	Rs.	A. P.	Rs.	A. P.
1. Cost of wood for splints and veneers	0	7 8	0	5 3
2. Cost of papers for label and wrapper	0	1 0	0	1 0
3. Cost of chemicals	0	3 3	0	2 6
4. Cost of other raw materials	0	3 3	0	1 7
5. Factory labour	0	9 7	0	8 0
6 Power and fuel	0	1 1	0	0 10
7. Ordinary current repairs, etc. . . . .	...		0	1 8
8. General services supervision, etc. . . . .	...		...
9. Miscellaneous, e.g., rent, Municipal taxes, insurance, etc.	0	1 1	0	1 4
10. Cost of packing cases	Nil		Nil	
NET TOTAL	1	10 11	1	6 2
Total production of matches for the year	517,750 gross		1,087,150 gross	

(2) *Letter dated 10th March 1927.*

As desired we have the honour to forward herewith six copies of each of the following letters from Forest Officers of Burma Districts :—

(1) Letter No. 94-X-6307, dated 24th April 1924, from the Deputy Conservator of Forests, Toungoo.

(2) Letter No. 481-Xc-17, dated 7th May 1924, from the Deputy Conservator of Forests, Katha Division.

(3) Letter No. 2149-Nb-24, dated 29th May 1924, from the Deputy Conservator of Forests, Pyinmana Division.

(4) Letter No. 456-Xe-19, dated 9th June 1924, from the Divisional Forest Officer, Kaukkwe Division, Bhamo.

(5) Letter No. 384—2-23, dated 17th June 1924, from the Deputy Conservator of Forests, Myittha Division.

(6) Letter No. 1491-Xe-60, dated 19th July 1924, from the Deputy Conservator of Forests, Mengmit Forest Division, Mogok.

(7) Letter No. 1123-Nb-11, dated 8th September 1924, from the Divisional Forest Officer, Lower Chindwin Division.

(8) Letter No. 68, dated 30th August 1926, from the Working Plans Officer, Insein Division.

No. 94-X6-307, dated Toungoo, the 24th April 1924.

From—C. G. E. DAWKINS, Esq., Deputy Conservator of Forests, North Toungoo Division, Toungoo,

To—ADAMJEE HAJEE DAWOOD & Co., LD., 91, Mogul Street, Rangoon.

Your letter dated 3rd April asking for information regarding timber for match manufacture.

Of the list of trees you give the following could be obtained from this Division :—

(1) In large quantities :

Didu, Leza.

(2) In fair quantities :

Yon, Letpan, Myaukngo, Chinyok, Nabe, Gwe, Tauksa, Thapan.

The Royalty on these is given below :

Leza Rs. 8 per ton.

Didu, Yon, Letpan, Myaukngo, Mau, Chinyok, Nabe, Bwe, Tauksa, Thapan, Rs. 4 per ton.

All the trees given above are procurable in any part of the Division. Extraction by local traders is in operation but as many of the species you want are not otherwise saleable they are usually left behind unextracted.

(Sd.)

*Deputy Conservator of Forests,
North Toungoo Division.*

No. 481-Xc.-17, dated Katha, the 7th May 1924.

From—J. M. L. MACKENZIE, Esq., Deputy Conservator of Forests,
Katha Division, Katha,

To—M. H. K. MASTER, Esq., C/o Mr. Husain Khan, Azam Khan,
Maymyo.

Your letter dated the 2nd April 1924. Certain of the timbers you mention can be obtained in moderate quantities in Katha Division. I am not prepared to commit myself to figures as I have nothing reliable to go by.

With regard to your specific enquiries Nos. 1, 2 and 3 will best be answered by a personal visit of exploration and enquiry among local traders. No. 4 can be ascertained from the Burma Gazette and the Forest Manual. The Conservator of Forests, Utilization Circle, is in a position to supply such information as you ask for the whole province.

I attach a tabular statement giving certain information but emphasize that I do not guarantee it nor am I in a position to define such expressions as "Plentiful" in terms of tons.

(Sd.)

*Divisional Forest Officer,
Katha Division, M. B. M.*

No.	Species.	Nature of Stock.	Situation.
1	Letkok	Scarce	Whole division.
2	Yon	Do.	Do.
3	Ma-u	Plentiful	Do.
4	Didu	Do.	Near Irrawaddy and Meza Chg.
5	Letpan	Do.	Whole Division.
6	Aukohinza	Scarce	Near Railway.
7	Myaukngo Ma-u Let- tanshe.	Plentiful	Near River and Railway.
8	Gyaungbaya	Unknown	Whole Division.
9	Taungtamasok Pyinsit Petsut.	Very scarce	Do.
10	Kathit	Do.	Do.
11	Yayaw Tayaw	Do.	Do.
12	Chinyok	Plentiful	Near River and Railway.
13	Yemane	Do.	Whole Division.
14	Myaukseik	Unknown	Do.

No.	Species.	Nature of Stock.	Situation.
15	Kusan	Scarce	In accessible places.
16	Dwalok Tabo Myetwa .	Unknown	Whole Division.
17	Leza	Scarce	In accessible places.
18	Tawthidin	Plentiful	Whole Division.
19	Nabe	Do.	Do.
20	Tinyu	Not known	Do.
21	Taungpetwun	Scarce	In accessible places.
22	Momaka Yene	Do.	Do.
23	Ma-u Letpanshe	See 7 . . . . .	.....
24	Gwe	Plentiful	Whole Division.
25	Binga	Do.	Do.
26	Letkok	Scarce	Do.
27	Shawni	Plentiful	Do.
28	Thayetkin Thayetkan .	Unknown	Do.
29	Ychmyok	Do.	Do.
30	Tanksha	Plentiful	Do.
31	Kohe	Is said to be Local name for "Didu" (unknown).	Do.
32	Ywe-bok	Unknown	Do.
33	Thaphan	Plentiful	Do.

No. 2149-Nb.-24, dated Pyinmana, the 29th May 1924.

From—R. W. V. PALMER, Esq., Deputy Conservator of Forests,
Pyinmana Division,

To—M. H. K. MASTER, C/o Mr. Husein Khan, Azam Khan, Maymyo.

In reply to your letter of April 3rd, 1924, attached form gives the information you require. Should you require further information, I suggest you visit this Division and judge for yourself as to the suitability or otherwise of the timber and the methods of extraction.

(Sd.)

Divisional Forest Officer,
Pyinmana Division.

Serial No.	Timber to be obtained in this Division.	Timber available in quantity.	Where found.	Royalty and Duty.
1	Lettok Taungmeek	2	Chiefly in the Haing Reserve 20 miles North West of Pyinmana.	Royalty on all species except Yamane Rs. 5 per ton. Yamane Rs. 6 per ton.
2	Taungsaga	3		
3	Yon	4		
4	Didu	5		
5	Letpan	6		
6	Auchinza	7		
7	Myaukngo	9		
8	Maulettanshe	10		
9	Mau. Mungaungdon	11		
10	Taungtamasok	12		
11	Pyinsit Potsut	15		
12	Thitsawbwa	16		
13	Kathit	18		
14	Tayaw Kayaw	19		
15	Chinyok	20		
16	Yamane	21		
17	Myaukseik Pyaukseik	23		
18	Kushan	30		
19	Dwalok Tabo Myothiwa . . . . .	...	
20	Leza . . . . .	...	
21	Thawthidin . . . . .	...	
22	Nabe . . . . .	...	
23	Momaka . . . . .	...	
24	Taungpetwun . . . . .	...	
25	Mau Lettanshe . . . . .	...	
26	Gwe . . . . .	...	
27	Binga . . . . .	...	
28	Letkok . . . . .	...	
29	Thayetkin Thayetsan . . . . .	...	
30	Shawne . . . . .	...	
31	Tauksha . . . . .	...	
32	Kohe . . . . .	...	
33	Ywe bok . . . . .	...	
34	Thapan . . . . .	...	

No. 456-Xe-19, dated Bhamo, the 9th June 1924.

From—G. M. TURNER, Esq., Divisional Forest Officer, Kaukwe Division, Bhamo,

To—Messrs. ADAMJEE HAJEE DAWOOD & Co., LD., 91, Mogul Street, Rangoon.

GENTLEMEN,

Reference your letter of the 3rd April 1924 to my address regarding suitable species for match manufacture found in this division practically all the species mentioned in your list with the exception of Pine are found in various parts of the division.

Yon, Letpan, Maulettanshe, Taungpetwun, Thayet, Kohe and Thapan are found in large quantities everywhere.

Yon, Letpan and Thapan may be extracted very cheaply from the Kaukwe Kyaukkyi and Kangu Ranges. Extraction of other species is not so easy but still not difficult and will be slightly more expensive.

The royalty on Yamane is Rs. 6 per ton, all the other species are classed as other unreserved and the rate of royalty is Rs. 2 per ton.

I have the honour to be,

Gentlemen,

Your most obedient servant,

(Sd.)

*Divisional Forest Officer,
Kaukwe Division.*

No. 384—2-23, dated Mawlaik, the 17th June 1924.

From—W. J. G. COOPER, Esq., Extra Deputy Conservator of Forests, Myittha Division, Mawlaik,

To—Mr. M. H. K. MASTER, C/o Mr. Husain Khan, Azam Khan, Maymyo.

SIR,

Reference your letter dated 2nd April 1924, making inquiries about timber for match making please see attached list of kinds of woods and area in which available. Most of the species you require are of the unreserved kind the duty on which is only Re. 1 per ton. The list shows which kinds are mostly available. You may either get local traders to work for you and deliver it at Alon (Monywa) railway siding or you may register a hammer mark and work it out with your own men.

(Sd.)

*Divisional Forest Officer,
Myittha Division.*

List of timber for Match wood.

Mahamyaing or Massein.	Kale or Kalewa.	Mingin.	Maukkadaw.	Indin or Kalemyo.
Lettok.	Letpan.	Pyaukseik.	Lettok.	Aukchinza.
Taungsega.	Momaka.	Man.	Yon.	Lettok.
Yon.		Yon.	Mau.	Man.
Letpan.		Nabe.	Didu.	Kathit.
Aukchinza.		Kusan.	Letpan.	Shawni.
Maulettanshe.		Maulettanshe.	Aukchinza.	Binga.
Petsut.		Thaphau.	Maulettanshe.	Yemane.
Kathit.		Letpan.	Petsut.	Kusan.
Chinyok.		Aukchinza.	Kathit.	Maulettanshe.
Yemane.		Chinyok.	Chinyok.	Chinyok.
Pyaukseik.		Yemane.	Yemane.	Gwe.
Kusan.		Yathabye.	Pyaukseik.	Momaka.
Tawthidin.		Gwe.	Kusan.	Pyaukseik.
Nabe.		Binga.	Tawthidin.	Thaphan.
Momaka Yethabye.		Htinshu.	Nabe.	Yon.
Gwe.			Momaka Yethabye.	Nabe.
Binga.			Binga.	Htinshu.
Shawni.			Shawni.	Letpan.
Thayet.			Thaphan.	
Thaphan.			Ywebok.	
Myaukngo.				

Range officers report that the following kinds of timber can be found in their Ranges as noted below.

Letpan	}	Can be found in small quantity in Kun- chaung Range on the Shweli River.
Didu		
Mau Maugaungdon		
Letpan		Can be found in largest quantity in Wainglon Range on Shweli River.
Letpan		Can be found in largest quantity in Upper Shweli Range on Shweli River.
Yon	}	Can be found in small quantity in Name Unreserved Forests Name Range on the Shweli River.
Mau		
Letpan		
Aukchinza		
Myaukngo		
Taungtama		
Pyaukseik		
Kusan		
Nabe		
Taungpetwun		
Mau Maugaungdon	}	Can be found in fair quantities in Name Range on the Shweli River.
Myaukngo Maulettanshe		
Nabe		
Binga		
Tauksha		
Thaphan		
Letpan		Can be found in fair quantities in Momeik Range on the Shweli River.
Letpan	}	Can be found in small quantity in Nga O Range on the Shweli River.
Mau		
Nabe		
Binga		
Tauksha		
Thaphan		
Kohe		

The other species are scarce in this Division.

No. 1123-Nb.-11, dated Monywa, the 8th September 1924.
 From—J. L. HEFFERMAN, Esq., Deputy Conservator of Forests, Lower
 Chindwin Division, Monywa,
 To—Mr. M. H. K. MASTER, C/o Mr. Husain Khan, Azam Khan,
 Maymyo.

MEMO.

Reference your letter No. *nil*, dated 3rd April 1924.

The following kinds of timber are available in my division :—

I.e.tpan obtainable from Kani Kabaing and Pagyi Ranges.

Yon, Didu, Aukchinza, Petsut, Tayaw, Kuzan, Nabe, Shawni and
 Thaphan obtainable from Kani Range.

The royalty payable under licenses to extract timber from public forest
 land shall be levied at the rate of Rs. 2 per ton.

The cost of extraction of any of the above woods from this part of Burma
 to Rangoon will I am afraid make their use prohibitive.

(Sd.)

*Divisional Forest Officer,
 Lower Chindwin Division.*

Letter No. 68, dated 30th August 1926.

From—C. W. SCOTT, Esq., Working Plans Officer, Insein Division,
 To—Messrs. ADAMJEE HAJEE DAWOOD & Co., LD., 91, Mogul Street,
 Rangoon.

SIR,

I have the honour to say that the Conservator of Forests, Working Plans
 Circle, Maymyo, has authorized me to supply you with the accompanying
 data and information on the strict understanding that they are not official
 or necessarily final.

2. Table I shows for 5 important matchwood species the numbers of trees
 of 5' or over at the point of felling which are estimated to exist at the present
 time in the whole Mahuya Reserve and about one-third of the Paunglin
 Reserve.

3. Table II shows similar data but down to 8" diameter the smallest size
 counted in the enumerations of last season.

4. To be on the safe side I think it advisable to regard the probable outturn
 from such species as *mondaing*, *odein*, *setkadon*, *myaukngo* and *yemane* assum-
 ing that you find these suitable and extract them as only compensating for
 the defective or inaccessible trees of the five species included in my tables
 and not therefore as likely to increase the available matchwood supplies.

5. Further more I consider it a conservative guess to put the available
 supplies in the remaining two-thirds of the Paunglin Reserve, i.e., the portion
 of your lease area in which no matchwood countings have been done at the
 same figure as the counted portion of the Paunglin Reserve (8,000 trees). It
 is true that the un-counted area is about double the size of the counted area
 but it includes remote areas probably too expensive to work and a Karen
 taungya area which is not likely to yield much matchwood.

6. In view of the above I estimate that your whole lease area contains at the present moment about 31,000 matchwood trees above 5' in girth at point of felling and reasonably sound and accessible for extraction.

7. These trees are growing and it is thought that growth will bring at least another 7,500 trees above the girth limit during the period of your 15-year lease in coupes not already worked over.

8. I estimate the possible outturn of your whole lease area therefore at about 2,500 trees per annum for the 15-years of your lease. It is obvious that this figure is very liable to require correction according to the new species you may find it possible to use the areas you may find it impossible to work the proportion of trees you may wish to reject on account of fluting crookedness, etc.

9. I gather that the felling cycle for your lease area is likely to be fixed provisionally at 15 years, *i.e.*, that you will be allowed to fell and extract from each coupe or compartment only once in the 15 years of your lease. Thereafter if your lease is extended you will be able to return to the compartments already worked and extract from them again. Experiments are contemplated to measure the rate of growth of matchwoods in various types of jungle and the felling cycle will be subject to revision after 7 years in accordance with the results of these experiments. It is possible that it might be found necessary to lengthen it. I think it very improbable that it will be shortened.

I have the honour to be,

Sir,

Your most obedient servant,

(Sd.)

MATCHWOODS IN INSEIN DIVISION.

TABLE I.

Based on enumerations made in 1926.

Estimated numbers of matchwood trees of 4' 6" breast height girth and over (5' at point of felling).

	Species.	16*—20".	20—24".	24—28".	28—32".	Diameter Classes.		
						32" and over.	Total.	
Mahuya Reserve (Whole area)	Sawbya . .	4,003	2,977	961	163	50	8,154	* Figures in this column are only half the total enumerated and shown in Table II as half the trees in this diameter class are estimated to be below 4' 6" girth at breast height (5' point of felling).
	Gwe . .	1,701	895	269	99	69	3,033	
	Mau . .	484	812	539	306	408	2,549	
	Didu . .	270	263	224	114	206	1,077	
	Letpan . .	3	12	6	10	4	35	
						GRAND TOTAL	14,848	
Paunglin Reserve (29 compartments) only out of a total for the whole reserve of 100 compartments averaging 1 square mile in area.	Sawbya . .	1,280	1,017	302	75	39	2,713	
	Gwe . .	957	835	331	67	93	2,283	
	Mau . .	164	438	235	137	179	1,153	
	Didu . .	337	446	228	181	419	1,611	
	Letpan . .	2	...	5	3	11	21	
						GRAND TOTAL	7,781	

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The 30th August 1926.

C. W. SCOTT,
W. P. O. Insein

MATCHWOODS IN INSEIN DIVISION.

TABLE II.

Based on enumeration made in 1926.

Estimated numbers of matchwood trees of 8" diameter and over.

	Species.	8-12'.	12-16'.	16-20'.	20-24'.	24-28'.	28-32'.	32' and over.	Total.	
Mahuya Reserve (Whole area).	Sawhya .	17,990	15,353	8,006	2,977	961	163	50	45,500	The minimum girth prescribed in the Dawood lease (5' at point of felling 4' 8' at breast height) is considered to fall about the middle of this diameter class.
	Gwe .	8,305	7,812	3,402	895	269	99	69	20,351	
	Mau .	853	933	969	813	539	306	408	4,820	
	Didu .	1,213	848	541	263	224	114	206	3,409	
	Letpan .	42	21	7	12	6	10	4	102	
		28,403	24,467	12,925	4,959	1,999	692	787	74,182	
Pananglin Reserve 29 compartments only out of a total for the whole a reserve of 100 compartments averaging 1 square mile in area.	Sawhya .	2,074	3,134	2,560	1,017	302	75	89	9,201	
	Gwe .	2,474	2,594	1,915	835	331	67	93	8,309	
	Mau .	288	332	329	488	235	137	179	1,938	
	Didu .	1,139	763	674	446	228	181	419	3,850	
	Letpan .	...	3	5	...	5	3	11	27
		5,975	6,826	5,483	2,736	1,101	463	741	23,325	

The 30th August 1926.

C. W. SCOTT,
W. P. O., Insein.

(B) *Supplementary Statements submitted by Messrs. Adamjee, Hajes Dawood & Co., Ltd.*

SUPPLEMENTARY STATEMENT No. 1.

Prospectus of the Swedish Match Company.

A LIMITED LIABILITY COMPANY INCORPORATED UNDER THE LAWS OF SWEDEN.

Share Capital.

Issued 900,000 "A" shares of 100 Swedish Crowns each, carrying one vote per share.

Being issued 900,000 "B" shares of 100 Swedish Crowns each, carrying 1/1,000th vote per share.

(At exchange 16.66 Crowns to £1,100 Swedish Crowns = £6.)

Offer for sale of 271,500 "B" shares of 100 Swedish Crowns each at the price of £7 4s. 0d. per share.

Under Swedish Law not more than one-fifth of the voting power of the Company may be held by the foreign interest. In view, however, of the international nature of the business of the Company it has been thought desirable that such foreign interests should be allowed to hold a larger proportion than one-fifth of the Company's share capital and the creation of the "B" shares carrying a reduced voting power is being effected for this purpose. The total shares at present issued which are available for unrestricted transfer to foreign interests are the 178,500 "A" shares quoted in London. The whole of the 900,000 "B" shares, however, will carry such unrestricted transfer rights.

The "B" shares will, as from 1st January 1925, rank *pari passu* with the existing "A" shares of the Company in all respects other than voting. They will not, however, participate in dividends declared in respect of the year 1924, but in lieu thereof holders will receive 4.50 Swedish Crowns per share, which at exchange 16.66 Crowns to £1, represents approximately interest at 7 per cent. per annum to 31st December 1924, calculated as regards £3 13s. 6d. per share as from 14th May 1924, and as regards £3 10s. 6d. per share as from 1st July 1924. This interest will be sent by the Company to registered holders of the shares on 5th January 1925, and in the case of shares registered in the name of the Royal Exchange Assurance as mentioned later, the interest will be paid on presentation of the definitive certificates to Messrs. Higginson & Co., for marking on and after 5th January 1925. In the past the Company has paid dividends annually in April or May, but it is the intention in future to pay interim dividends.

The Company has outstanding the following funded debts:—

- (1) 20,000,000 Swedish Crowns 7 per cent. Mortgage debentures, repayable in whole or in part at the Company's option, between 1932 and 1946.
- (2) 12,800,000 Swedish Crowns (balance of 15,000,000 issued) 7½ per cent. Mortgage debentures, repayable by annual instalments by 1931.

The Company also guarantees jointly and severally with two of its subsidiaries the principal and interest in respect of 15,000,000 6½ per cent. Bonds of the International Match Corporation of America.

The following information is based upon the letter of the Managing Director of the Swedish Match Company, set out within, to which applicants are referred for full particulars:—

- (1) The Company controls 20 Match factories in Sweden, 42 match factories outside Sweden, and holds other important interests in the match industry.
- (2) The production of the Swedish factories alone represents over one-fifth of the total world production. Of the Swedish production 96 per cent. is exported and of this 80 per cent. is shipped or financed through London.
- (3) The proceeds of the shares now being offered here and in Sweden will be used for the erection of factories in India and for the extension of existing, and the acquisition of additional interests in Europe and other countries.
- (4) The expenditure on the Indian factories alone is conservatively estimated to result in a saving of 8,600,000 rupees per annum, which is equal at present exchange to more than 10½ per cent. on the new 900,000 shares.
- (5) Dividends which are paid without deduction on account of Swedish taxes, have averaged over 12 per cent. since 1918 and it is anticipated that this rate of dividend will be maintained on the increased capital.
- (6) On the basis of a 12 per cent. dividend with exchange 16·66 Crowns to £1, the yield on the issue price of £7 4s. 0d. is 10 per cent.

The purchase price is payable as follows:—

	Per share.
	£ s. d.
On application	1 0 0
On 14th May 1924	2 13 6
On 1st July 1924	3 10 6
	7 4 0

Application should be made on the accompanying form and sent to Messrs. Higginson & Co., 80, Lombard Street, London, E. C. 3, or Barclays Bank Limited, 54, Lombard Street, London, E. C. 3, or any of their branches together with a remittance for the amount payable on application.

If any application be accepted for less than the amount applied for the balance of the application money will be appropriated towards the amount payable on 14th May 1924, and any surplus then remaining will be returned, and where any application is not accepted the application money will be returned in full. Failure to pay any instalment when due will render the previous payment liable to forfeiture and the acceptance liable to cancellation.

Interest at the rate of 8 per cent, per annum will be charged on instalments in arrear.

Scrap Certificates to bearer will be issued by Messrs. Higginson & Co. in exchange for letters of acceptance on which the amount payable on 14th May 1924 has been paid. Definitive Certificates will be delivered as soon

as ready in exchange for fully paid Scrip. The Definitive Certificates stamped in accordance with English law will be registered in the name of the Royal Exchange Assurance and will be endorsed by them in blank, thus making the shares transferable on the market by delivery without payment of further stamp duty. The holders of these certificates will be able, if they so desire, to be registered as holders of the shares in the books of the Company in Sweden.

The 900,000 " B " shares, of which the 271,500 shares now being offered for sale form part, have been offered to " A " shareholders for subscription in Sweden, share for share at £7-1-0 or alternatively 125 Swedish Crowns per share. For the convenience of the holders of 178,500 " A " shares, Nos. 720,501 to 899,000 quoted in London, Messrs. Higginson & Co. have agreed to purchase 178,500 " B " shares, from Mr. Ivar Kreuger, a shareholder, and Managing Director of the Company at £7 1s. less 6s. 6d. per share, and by arrangement with the Company have agreed to offer by advertisement to the holders of the above-mentioned 178,500 " A " shares the right to purchase from them at £7 1s. per share one " B " share for each share held in lieu of their right to subscribe for shares in Sweden. Out of this commission of 6s. 6d. per share Messrs. Higginson & Co. are paying a guaranteeing commission, brokerage, and all the expenses connected with their offer to shareholders, together estimated to amount to about 3s. 6d. per share.

The 271,500 " B " shares now offered for sale are also being purchased from Mr. Kreuger the price being £7 4s. less 9s. per share. Messrs. Higginson & Co. are paying 8s. per share underwriting commission, 9d. per share overriding commission, brokerage of 1s. 3d. per share and all the expenses of this offer, including advertising.

The usual practice in Sweden in making an issue is for the Directors to offer the new shares to shareholders subject to the approval of the shareholders at an Extraordinary General Meeting to be held not less than one week later. This practice has been adopted in the present case, and the Directors' offer of 900,000 " B " shares to the shareholders and the present offer are subject to the approval of the shareholders at a meeting to be held on 5th May 1924. Messrs. Higginson & Co. have satisfied themselves that such approval will be forthcoming.

Application will be made to the Committee of the London Stock Exchange for permission to deal in the 271,500 " B " shares now offered for sale, and in the 178,500 " B " shares being offered to shareholders as mentioned above, and an official quotation will be applied for in due course.

Copies of the certificate of incorporation and of the bye-laws of the Company, and a copy of the agreement under which Messrs. Higginson & Co. are acquiring the shares from Mr. Ivar Kreuger, the original letter from the British Auditors and the original Consolidated Balance Sheet, copy of which accompanies this prospectus, can be seen at the offices of Messrs. Linklaters & Paines, 2, Bond Court, Walbrook, London, at any time during business hours while the list remains open.

A brokerage of 1s. 3d. per share will be paid in respect of accepted applications from the public, bearing the stamp of any broker, banker or other approved agent.

Copies of these particulars and forms of application may be obtained from Messrs. Higginson & Co., from the Head Office and Branches of Barclays Bank Ltd., and from the Brokers for this offer.

Dated 1st May 1924.

17, VASTRA TRADGARDSGATAN,
Stockholm, 28th April 1924.

MESSEs. HIGGINSON & Co.,
LONDON.

DEAR SIRs,

In connection with the new issue of shares in the Swedish Match Company I take pleasure in giving you the following information.

History and present position.

The Swedish Match Company was incorporated in 1917, with a capital of 45,000,000 Crowns, to effect an amalgamation of interests in the Swedish Match industry, and is a direct continuation of the Jonkoping Match Manufacturing Company, whose business was established in 1845. It owns the ordinary share capital of the Jonkoping and Vulcan Match Manufacturing Company and the ordinary and preference share capital of the United Swedish Match Factories Company. Through these two subsidiaries it owns 20 match factories in Sweden, valuable timber lands of a total area of about 120,000 acres well situated in relation to the different factories, a sulphite and paper mill, three important engineering works specialising in the production of match manufacturing machinery, three chemical plants, three lithographic printing works and a number of other undertakings auxiliary to the match industry. The production of the paper mill, chemical plants and engineering works is largely in excess of the requirements of the Company's Swedish factories, and the excess production is disposed of under contract to foreign competitors. The production of matches of the Swedish factories alone represents over one-fifth of the total world production. Of the Swedish production of matches about 96 per cent. is being exported and of this the percentage shipped or financed through London is steadily increasing and is now about 80 per cent.

During 1922 the share capital of the Swedish Match Company was increased to 90,000,000 Crowns by issuing 450,000 new shares of which about two-fifths were placed on the British market. Out of the proceeds of that issue the Company acquired the control of a number of important foreign match concerns previously competing with the Company, thereby increasing its revenue to a considerable extent, and strengthening its position in the match market.

The Company also controls through stock ownership The International Match Corporation, a company incorporated in America last year to take over from the Swedish Match Company and other important competitive groups interested in the match industry, the greater part of or the entire share capitals of companies owning 42 match factories in various European and other countries. The value of the interests thus acquired by the International Match Corporation in exchange for shares was approximately \$28,000,000, of which approximately \$15,000,000 represented the value of the interests transferred by the Swedish Match Company. In order to procure working capital for the International Match Corporation an issue of \$15,000,000 6½ per cent. bonds was placed on the American market in November last carrying the guarantee of the Swedish Match Company, and its two main subsidiaries. The proceeds of this bond issue are being used for the acquisition of investments in north and south America and in the Far East. Among the assets taken over was the entire share capital of a company owning a large match manufacturing plant in Canada, and this factory is now being developed and supplied with machinery of Swedish type.

In the Far East the International Match Corporation has already secured the control of some very important match factories, and negotiations for an extended influence in the match business in that part of the world are progressing in a satisfactory manner.

In addition to the above-mentioned holdings the Swedish Match Company has other extensive investments abroad and maintains friendly relations with all important competitors.

Past profits and dividends.

Share capital, profits, dividends and sales during the period 1910-23 will be seen from the table below:—

Ordinary share Capital.	Net profit.	Profit in per cent. earned on ordinary share Capital.	Dividends in per cent. paid on ordinary share Capital.	Sales of Matches.*
Crowns.	Crowns.			Crowns.
1910 . . . 3,000,000	1,169,478	38.98	6	13,402,018
1911 . . . 3,000,000	898,929	29.96	8	13,446,212
1912 . . . 3,000,000	888,313	29.61	8	17,426,536
1913 . . . 3,000,000	863,453	28.78	9	18,208,256
1914 . . . 3,000,000	1,282,430	42.75	10	21,201,304
1915 . . . 3,000,000	4,674,385	155.81	10	38,864,925
1916 . . . 3,000,000	5,441,586	181.39	12	55,902,927
1917 . . . 6,000,000	3,298,784	54.98	12	53,319,644
1918 . . . 45,000,000	7,776,026	17.28	12	66,509,291
1919 . . . 45,000,000	11,831,170	26.29	14	89,296,155
1920 . . . 45,000,000	11,486,010	25.41	14	137,646,274
1921 . . . 45,000,000	8,680,342	19.29	12	111,375,683
1922 . . . 45,000,000	9,240,317	20.53	12	125,868,663
1923 . . . 90,000,000	17,477,834	19.42	12	132,618,720

Prior to 1918, the above statement represents the position of the Jonkoping and Vulcan Match Manufacturing Company only. Commencing with 1918 the capital is that of the Parent Company and the profits given are those of the Parent Company and its two main subsidiaries after deducting interest on all bonds and debts, amortisation of plants, income and war taxes actually paid during the year, bonus to Directors and employees, and other charges of similar nature and dividends on the Preference shares of the Jonkoping and Vulcan Match Manufacturing Company, not owned by the Swedish Match Company.

* This represents sales of matches by the Company's Swedish factories and the Company's proportion of match sales by controlled foreign factories.

In accordance with Swedish Law the taxes in respect of the profits of the Company are paid before dividends are declared. Accordingly no deduction in respect of Swedish taxes is made in the dividends paid to the shareholders.

Assets and Liabilities.

The following is a copy of a letter received from Messrs. Whinney, Murray & Co., the British Auditors of the Company:—

14, PLACE DE MEIR, ANVERS,
23rd April 1924.

To the Directors of the Swedish Match Company and to Messrs. Higginson & Co., London.

GENTLEMEN,

In accordance with your instructions, we have examined the Books and Accounts of the Swedish Match Company and the Balance Sheets and Schedules relative thereto of the Jonkoping and Vulcan Match Manufacturing Company, the United Swedish Match Factories Company and 20 other Swedish Subsidiary Companies as at 31st December 1917 and 1923, and have prepared therefrom the annexed consolidated Balance Sheet as at 31st December 1923.

We have verified the Cash and Securities of the Swedish Match Company by actual inspection or by certificates from the depositories.

We have also had produced to us Balance Sheets at 31st December 1923 or other confirmatory information to substantiate the value at which the "Shares in and advances to Foreign Subsidiaries and Associated Companies and other Miscellaneous Investments" stand in the Books.

We are of the opinion that the annexed consolidated Balance Sheet presents a correct view of the aggregate state of affairs of the 23 combined companies as at 31st December 1923, according to the best of our information and the explanations given to us and as shown by the Books and Accounts of the Swedish Match Company and the Balance Sheets at that date of the other 22 Swedish companies combined in the annexed Balance Sheet.

Yours faithfully,

WHINNEY, MURRAY & COMPANY,
Chartered Accountants.

I have no hesitation in stating that the assets as appearing in the consolidated balance sheet prepared by Messrs. Whinney, Murray & Co., are conservatively valued.

Purpose of issue.

The proceeds of the issue of 900,000 "B" shares will be used for the extension of existing interests and the acquisition of additional interests abroad. As a considerable part of the proceeds will be expended on strengthening the Company's position in India, some details of the conditions of the match trade in that country may be interesting.

Before the War the Indian Match market was, and even now is, almost entirely held by Swedish and Japanese interests, the local production of matches being practically negligible. During the War on account of lack of freight facilities the Swedish proportion, which had previously been about 30 per cent. of the total trade, was lost entirely to Japan. During recent years, however, the Swedish interests have made great progress and have more than regained their position, their proportion of the trade being now 40 per cent.

For some years heavy duties have been imposed on the import of matches into India, and the question of establishing local factories there on a large scale has been under consideration. After careful investigation it has been

decided to embark upon this policy and match factories are now being erected at Bombay, Calcutta, Madras and Karachi all of which will commence operation during 1924, and it is expected that commencing with 1925 a highly satisfactory return will be obtained. On the basis of the quantity of matches shipped from Sweden to India during the second half of 1923, it is conservatively estimated that when these factories are in full operation the yearly saving in import duty by manufacturing in India will be 86,00,000 rupees which alone, at present exchange, is equivalent to over 10½ per cent. on the present increase in capital. In addition the existing sales organisation in India will be largely extended.

In other parts of the world opportunities of an extraordinary nature are presenting themselves for the profitable investment of capital; recently acquired manufacturing interests in Poland are to be extended, and it is contemplated that a substantial sum will be invested in the French Match Industry which up to now has been a Government monopoly. The Company has been approached by and is at present negotiating with several foreign governments with a view to taking over the match industry in their respective countries as private monopolies. The experience and technical resources of the Company, as well as its connections in all parts of the world, put it in a very favourable position for negotiations of this kind, and it may therefore be assumed that any business transacted on these lines will be on terms which are satisfactory to the Company and which will bring an ample return on the capital invested.

Prospects and future dividends.

In view of the above-mentioned developments and the favourable opportunities now offering for investment in the match industry, the writer is strongly of opinion that the expenditure of the proceeds of the new share capital will at least sufficiently increase the Company's profits as to enable it to maintain the present dividend of 12 per cent. on the increased capital.

Yours faithfully,
IVAR KREUGER,
Managing Director.

SWEDISH MATCH COMPANY.

CONSOLIDATED BALANCE SHEET AS AT 31ST DECEMBER 1923.

(Combining Swedish Match Company and twenty-two Swedish subsidiary Companies.)

Capital and Liabilities.

	S. Kr.
To Capital—	
Authorised and issued—	
900,000 shares of S. Kr. 100 each, fully paid	90,000,000-00
	S. Kr.
To Share Capital and proportion of surplus in combined companies not owned by Swedish Match Company, Jonkoping and Vulcan Match Manufacturing Company, 16,887 6 per cent. Preference shares of S. Kr. 1,000 each, fully paid with accrued dividend	17,370,220-00
Other subsidiary companies	48,333-70
	<u>17,418,553-7</u>

	S. Kr.	S. Kr.	S. Kr.
To Mortgage Debentures:—			
Swedish Match Company—			
7 per cent. "A" series Debentures	20,000,000·00		
7½ per cent. "B" series Debentures	12,800,000·00		
		32,800,000·00	
Jonkoping and Vulcan Match Manufacturing Company—			
5 per cent. Debentures		963,000·00	
Alby New Chlorate Company—			
5 per cent. Debentures		570,000·00	
Katrinefors Company—			
5 per cent. Debentures	1,411,000·00		
5½ " "	3,864,000·00		
		5,275,000·00	
			39,608,000·00
To Mortgage loans and Bank and Other guaranteed or secured advances			28,290,724·54
„ Employees' Saving Bank and other deposits or funds			461,250·39
„ Sundry creditors and credit balances			29,422,713·85
„ Reserve Funds			80,000,000·00
„ Profit and Loss Account			22,757,114·65
			307,961,357·13

Subject to taxation (estimated at S. Kr. 2,320,000) on profits for year 1923

	S. Kr.
Contingent Liabilities—	
1. Guarantee for the International Match Corporation Debentures	15,600,000·00
2. Discounted Trade Bills and other contingent liabilities	26,966,023·17

Assets.

	S. Kr.
By Freehold land, forests, buildings, Plant and machinery, Railway sidings, steamboats, barges, motor craft, rolling stock, live stock, etc., owned by the 23 combined companies, at cost to Swedish Match Company, <i>less</i> Depreciation	125,767,945·39
„ Patents, Trade marks and Experimental Costs	1·00
„ Office furniture	1·00
„ Shares in and advance to foreign subsidiary and Associated companies and other Miscellaneous Trade Investments	77,745,558·94

(NOTE.—There is a contingent liability of Swiss Francs 2,200,000 in respect of uncalled Capital on certain shares included above.)

	S. Kr.	S. Kr.
By Stock in trade as certified by Officials of the Company at cost or under :—		
1. Stock of matches	10,147,260·00	
2. Stocks of raw materials, etc.	17,573,951·86	
		27,721,211·86
„ Sundry debtors and debit balances		61,829,825·61
„ Swedish and foreign Government bonds		2,296,463·15
„ Cash at Bankers and in hand		12,600,350·18
		307,961,357·13

Consolidated Balance Sheet referred to in our letter of the 23rd April 1924.

WHINNEY, MURRAY & CO.,
Chartered Accountants.

ANTWERP,
23rd April 1924.

SUPPLEMENTARY STATEMENT No. 2.

SVENSKA TANDSTICKS AKTIEBOLAGET.

(The Swedish Match Company.)

Directors' Report for the year 1924.

The Board of Directors of the Svenska Tandsticks Aktiebolaget have pleasure in submitting their Report for the year 1924.

Considerable progress has been made in international business relations during the past year. The rise in sterling together with the stabilisation of the exchange in Germany and Poland and other countries have brought about a material improvement in the conditions of the general export trade. The match industry has also been beneficially influenced by the above-mentioned conditions and the majority of markets can now be considered to have regained to a large extent their stability. The sales of matches from the company's factories in Sweden have during the past year somewhat exceeded the sales of 1923.

The working days have during the whole of the year comprised 4½ days per week which is the same number of working days as during the three last quarters of 1923. During the first quarter of 1923 the factories were running only three days per week.

The selling prices which have been obtained have been comparatively satisfactory.

Compared with pre-war conditions the sales of matches manufactured in Sweden during the year under review measured by weight have fallen below the total sales of 1913 by about 4 per cent. With a view to strengthening the power of competition the Swedish Match Company has for certain markets gone over to the manufacture of smaller and lighter types of matches which in comparison with their weight represent a larger number of matches and boxes. The Swedish Match industry can now therefore be considered to have fully regained the sales total prevailing during 1913. As however on account of taxation and increased tariff protection in a large number of markets the world's match export trade in 1924 was less than two-thirds of the 1913 figure it will be seen that the sales of matches of Swedish manufacture now represent a much higher percentage of the world's match export trade than before the war.

The company's investments in foreign match concerns have increased considerably and the construction of new match factories in various countries has proceeded in a satisfactory manner. In this regard the company's new match factories in India may especially be mentioned. Those in Bombay and Calcutta started operating during the past year and the matches produced at these factories have already gained an important trade on the Indian market.

With a view to enable the company to issue such shares as may without restrictions be held by foreign subjects the company has during the past year made alterations in its Articles of Association and accordingly a new type of shares called "B" shares carrying 1/1,000th vote only has been created.

In conjunction with Messrs. Higginson & Company, Bankers of London, a new issue has been made during the past year of 900,000 shares of the "B" category. The majority of these shares which are quoted on the London Stock Exchange have been absorbed by the English market.

The Company's American subsidiary the International Match Corporation has during the past year given notice of the redemption of their \$15,000,000 Bond Issue. To obtain funds for the redemption of these Bonds preference shares have simultaneously been issued for a corresponding amount. The Swedish Match Company's guarantee of this Bond Issue has consequently been cancelled.

It is the policy of the Swedish Match Company to let profits made by subsidiaries remain with these to a large extent and only transfer to the parent company so much profit as is required to comfortably pay the dividend of the parent company. In this way considerable saving in taxes is effected and reserves are created in the books of the subsidiary companies. From the Profit and Loss Account remaining from 1923 has been paid 4 per cent. interim dividend for 1924, as well as certain taxes and expenses in connection with the new Share Issue.

The Profit and Loss Account and the Balance Sheet per 31st December 1924 are given below:—

Profit and Loss Account, 1924.

INCOME.		Kr.
Balance of profit from previous year		2,808,881-51
Sundry accounts		20,789,541-80
	TOTAL	23,597,922-81
EXPENDITURE.		
General expenses		1,657,477-72
	Kr.	
Profit transferred from 1923	2,808,881-51	
Net profit 1924	19,132,063-58	
Balance per 31st December 1924		21,940,445-09
	TOTAL	23,597,922-81

Balance sheet per 31st December 1924.

ASSETS.		Kr.
Cash in hand and at Bank		52,341,650·16
Bonds		4,164,743·13
Sundry debtors		51,690,509·50
Stock matches		7,231,350·00
Foreign investments and constructions		35,158,461·66
SHARES.		
	Kr.	
5,994 ordinary shares in Jonkopings och Vulcans Tandsticksfabriksaktiebolag	34,964,976·10	
2 preference shares in Jonkopings och Vul- cans Tandsticksfabriksaktiebolag	2,000·00	
152,496 ordinary shares in Aktiebolaget Forenade Svenska Tandsticksfabriker	48,493,728·00	
27,500 preference shares in Aktiebolaget Forenade Svenska Tandsticksfabriker	8,745,000·00	
568,000 shares in International Match Corporation	6,407,622·04	
34,996 shares in Trummer & Co. Successors Ltd.	630,000·00	
484,550 shares in J. John Masters & Co., Ltd.	9,070,932·00	
996 shares in The Swedish Chinese Export and Import Co., Aktiebolag	100,000·00	
845 shares in Katrinefors Aktiebolag	5,915,000·00	
18,496 shares in Aktiebolaget Ofverums Bruk	4,600,000·00	
5,996 shares in Aktiebolaget Skogsegon- domar	600,000·00	
1,346 shares in Alby Nya Kloratfabriks Aktiebolag	1,350,000·00	
1,996 shares in Elektrolytiska Aktiebolaget Trollhattan	200,000·00	
3,396 shares in Aktiebolaget Siefert and Fornander	400,000·00	
96 shares in Aktiebolaget Lowenadler & Co.	50,000·00	
1,196 shares in Svenska Tandsticksbolagets Forsaljningsaktiebolag	120,000·00	
	179,317,858·14	
Office furniture		1·00
	TOTAL .	329,904,573·59

LIABILITIES.

	Kr.
Share capital	180,000,000-00
Reserve Fund	81,541,081-42
Debenture Loan	31,575,000-00
Sundry creditors	14,848,047-08
Profit and Loss Account	21,940,445-09

Discounted trade bills and other contingent liabilities
Kr. 25,194,130-04.

329,904,573-59

The profit at the disposal of the Annual General Meeting amounts to Kr. 21,940,445-09 and the Directors propose that same should be distributed as follows:—

	Kr.
a dividend of 12 per cent. on the "A" shares less 4 per cent. interim dividend paid in October 1924 to be paid to the share-holders	7,200,000-00
and the balance to be carried forward to the 1925 profit and loss account. The Board of Directors ask authorization of the General Meeting to pay during the latter part of the year out of profit and loss account an interim dividend of 4 per cent.	14,740,445-09

Stockholm, the 21st of March 1925.

BERNDT HAY.	GUNNAR MELLGREN.
O. EYDBECK.	TORSTEN JUNG.
OSCAR ROEMPKE.	IVAR KREUGER.
RAGNAR LILJENROTH.	J. W. HILLS.
J. O. ROOS AT HJELMSATER.	H. LAURITZEN.
BERNDT HASSELROT.	C. A. LOWENADLER.
G. AKERS DOUGLAS.	L. WESTBERG.
K. DAHLBERG.	KRISTER LITTORIN.
ARTHUS E. ZACHAN.	

SUPPLEMENTARY STATEMENT No. 3.

SVENSKA TANDSTICKS AKTIEBOLAGET.

17, VESTRA TRADGARDEGATAN,
STOCKHOLM.

Stockholm, April 16th, 1925.

P. O. Box 414.

Adamjee Hajee Dawood, Esq.,
Mogul Street,
Rangoon.

DEAR MR. DAWOOD,

Having safely returned to Stockholm from my flying trip to India and Burmah I want to write you a few lines thanking for the pleasant though fruitless negotiations we carried on during my stay in Rangoon and also for your kind hospitality.

Being yourself a match manufacturer it might be of some interest to you to see the results of our company's activity during last year. Therefore I enclose our Director's Report for that year.

By now I suppose you have learnt about the course we took when it proved impossible to bring your and our interests under one and the same hat. To be quite candid I should have preferred to send our technical staff to your factory instead whereby we should have been able to take care of the Burmah market in a more efficient way from the very beginning. I repeat what I told you verbally that we have let go an opportunity which in all probability never will offer itself to the same advantage as just now. The future will show whether this my conception is right or wrong.

Best regards.

Yours sincerely,
KRISTER LITTORIN.

SUPPLEMENTARY STATEMENT No. 4.

Y. Nakamura & Co.,
Yamaguchi Bank Building,
No. 50, 2, Chome Sakayemachi,
Kobe (Japan).

Kobe, 1st March 1927.

Messrs. Adamjee Haje Dawood & Co., Ltd.,
Rangoon.

DEAR SIRS,

We are in receipt of your letter dated 26th January . . . The contents have been noted with thanks.

We have this pleasure to hand you our Invoice No. 162 for the shipment of balance of your order on Cow Head labels, and beg to say that as the credit through the Chartered Bank's balance was short by Yen 357.93, against the total amount of our invoice, we have drawn this value by 30 days sight bill separately through this same Bank, on the same shipping documents, which please note, and will thank you to kindly protect our signature when presented.

We have received to-day a cable from our Bombay friends stating that the new duty question is finally decided to-day and remains unchanged. This will mean the match factories in India will have the identical year as that of last year, regard the duty question.

We understand that the Swedish Match Company (Wimco), people are dumping the matches into your market, at a ridiculously cheap rate, which of course, is intended to stamp out the manufacturing of matches in your market. These people are very independent and they try to ruin the market of every place in India. They have factories in Calcutta and Bombay, and they are competing desperately in these markets also.

We hear that they intend to have a factory in Rangoon and Madras, and it may be perhaps, they are now trying to dump the goods in your market with the intention to stir for a purchase of some factory at your district, who may become tired of making further matches.

This kind of motive they always use when they aim for their want. They have come to Japan, and have amalgamated in $\frac{1}{2}$ shares with three large people of match makers, and to-day our Japanese people are losing more money than what they were doing alone. They probably wish to govern the whole world in match field. Our Japanese people are now worried why

they have not sold everything to the Swedish concern, instead of reserving half share in business. This is for your information.

We remain,
Dear Sirs,
Yours faithfully,
Y. NAKAMURA & CO.

SUPPLEMENTARY STATEMENTS Nos. 5 TO 7.

Letter from Messrs. Adamjee Haje Dawood and Company, Limited, Rangoon, to the Secretary, Tariff Board, Rangoon, dated the 28th March 1927.

We have the honour to forward herewith three statements as required by the Board during the first two days of our oral evidence.

- (1) Statement of comparison of prices between Aspen wood imported from Japan and Aspen wood imported from Europe. (Copies of latest quotation from Japan are also sent herewith.)
- (2) Statement showing the c.i.f. prices of matches imported from Japan also average selling price in Rangoon.
- (3) Statement showing proportion of wastage of wood.

We have stated in our replies to the questionnaire that 156 gross boxes of matches could be manufactured from one ton of wood and the Board had asked us what proportion of this one ton was required for making splints and what proportion for making veneers. We may inform you that out of the one ton of 50 cubic feet are required for splints and 28 cubic feet for veneers.

SUPPLEMENTARY STATEMENT No. 5.

Aspen wood from Europe.

Invoice No. 7932.

57 logs of Aspen wood = 15.293 cubic metres	at	£	s.	d.
£5.11.0 per cubic metre		84	17	6
Interest		0	14	6
		<u>85</u>	<u>12</u>	<u>0</u>

	Rs.	A.	P.
Exchange 1-6 $\frac{1}{2}$ d.	1,139	6	0
Duty	169	11	0
Chellan	23	4	0
Railway freight	12	15	0
Unloading charges	14	4	0
TOTAL	<u>1,359</u>	<u>8</u>	<u>0</u>

Cubic metres 15.293	Ton, c. ft.
	8 26 0

i.e., 8 tons 25 c. ft.	Rs. A. P.
1 c. ft.	1,359 8 0
	<u>8 8 0</u>

Timber imported from Japan.

Invoice No.	Cubic feet.	Yens.
106	1122·8994	2,189·65
107	11199·7599	21,447·54
110	8800·1615	16,720·31
116	4999·5230	8,639·02
118	2231·6645	3,791·71
126	4624·5332	7,527·73
127	2094·6991	3,402·06
131	3973·3526	6,262·38
132	3760·2508	6,069·69
134	4451·3934	7,441·74
143	3912·0725	6,618·56
	<hr/>	<hr/>
	51172·2399	90,130·39

i.e., Yen 1·76 per cubic foot c.i.f. Rangoon=Rs. 2·4·6 per cubic foot c.i.f. Rangoon.

Copy of telegram from Messrs. Y. Nakamura & Company, Limited, Kobe, dated 12th February 1927.

NATIC—We offer firm c.i.f. shipment within 2 months.

YEHKY—150 tons.

WUCSA—Aspen wood.

LEAKD—Yen 2.

Telegram from Messrs. Y. Nakamura & Company, Limited, Kobe, dated 17th March 1927.

NATIC—We offer firm c.i.f. shipment within 2 months.

YEHUJ—250 tons Aspen wood.

UHHUI—Telegraph if you will.

GOSTO—Fresh.

ONOBZ—Best quality.

LIPYT—180.

RAFAZ—Sens.

GABEK—Cubic feet.

ACLOM—Recommend accepting.

SUPPLEMENTARY STATEMENT No. 6.

Statement showing the c.i.f. prices of matches imported from Japan also average selling prices in Rangoon.

Year.	C.i.f. price in Rupees per 50 gross.	Duty <i>ad valorem</i> .	Landing charges.	Average selling price per 50 gross.
	Rs. A.		Rs. A. P.	Rs.
1912	23 4	5 %	0 6 0	25
1913	23 12	„	„	25
1914	23 8	„	„	26

SUPPLEMENTARY STATEMENT No. 7.

Statement showing proportion of wastage.

For the purpose of explaining the wastage and loss in logs of large and small girths, we give below the conical measurements of 5 logs of various sizes.

Diameter.	Circumference.	Girth.	Length.	Cubic Contents.
2'	$\frac{44'}{7}$	6'-3"	2'	4'-9"-0
1'-10"	$\frac{121}{21}$	5'-9"	2'	4'-1"-0
9"	$\frac{33}{14}$	2'-4"	2'	0'-7"-0
7"	$\frac{11}{6}$	1'-10"	2'	0'-4"-0
3½"	$\frac{11}{12}$	0'-11"	2'	0'-1"-0

When a log of 2 feet in diameter or 6' 3" in circumference is handled, about the first two inches is practically shaved away until a clean and round circumference is obtained, so as to ensure regular veneering. This log is veneered right down to the core and about 3½ inches is left which is too soft or of no use so that actual veneer obtained is 24 inches, less 2" plus 3½" or a net of 18½ inches.

In the case of a log 9" in diameter or 2' 4" in girth, the same loss of about 2" for shaving occurs and the core of no use is about the same as that of a large log, *viz.*, 3½", so that the actual veneer obtained is 9" less 2" plus 3½" or a net 3½".

SUPPLEMENTARY STATEMENT No. 8.

Aspen wood.

1 ton of 50 c. ft. Fresh Aspen wood including bark weighs about lbs. 9,187, about 15 per cent. of this has to be rejected for being dried on the way to India, i.e., from 1 ton of Aspen wood, we actually get about 2,710 lbs. of good wood.

2710=856½ lbs.	Bark.
142½ "	Ends.
237 "	Central portion at 3½" Girth.*
365½ "	Veneers.
338½ "	Wastage in chopping.
555½ "	Wastage in drying.
47½ "	Wastage in cleaning.
33½ "	Shortage.
<hr/>	
2,076½ lbs.	
633½ "	Splints.
<hr/>	
2,710 lbs.	

that means that we get 633½ lbs. of splints from 1 ton of Aspen wood.

1 lb.=7,820 splints (size 1.75 mm.×1.75 mm.×50 mm.)

633½ lbs.=4,953,970 splints from 1 ton of Aspen wood,

about 10 per cent. of these splints are wasted in the following processes:—

- (1) Levelling, (2) Frame filling, (3) Paraffining, (4) Dipping, (5) Emptying, (6) Hand filling.

Actually we get about 4,458,573 splints from 1 ton of Aspen wood.

1 box contains 85 splints on an average.

About 52,454 boxes contain 4,458,573 splints.

About 364 gross of boxes can be manufactured from 1 ton of Aspen wood.

156 gross of boxes can be manufactured from 21½ c. ft. of Aspen wood.

* This is for German machines. In Japanese Peeling machines, only 1½ Central Portion is wasted.

N.B.—If this Aspen wood is worked in Japan, about 20 per cent. more output can be obtained.

SUPPLEMENTARY STATEMENT No. 9.

Letter, dated 18th April 1927.

With reference to your letter No. 289, dated the 9th instant, we have the honour to forward herewith a statement (with six spare copies) showing freight, insurance, landing, loading and unloading charges incurred per 50 gross of matches when exported to the ports mentioned in the said statement.

We also enclose a copy of the speech* of Mr. Ivar Kreuger, Managing Director of the Swedish Match Company, as promised.

Port.	Distance from Rangoon. Miles.	Freight from Rangoon per 50 gross.	Landing, loading and unloading charges per 50 gross.	Insurance charges per 50 gross.
		Rs. A. P.	Rs.	Rs. A. P.
Tavoy	258	3 8 0	2	0 6 0
Mergui	409	4 8 0	2	0 6 0
Akyab	479	3 8 0	2	0 6 0
Chittagong	635	3 8 0	2	0 6 0
Tuticorin	1,407	5 8 0	2	0 8 0
Madras	1,000	4 0 0	2	0 8 0
Gopalpore	557	5 8 0	2	0 8 0
Cocanada	867	5 8 0	2	0 8 0
Cuddalore	1,155	7 0 0	2	0 8 0
Calcutta	779	3 8 0	2	0 6 0
Cochin	1,535	5 8 0	2	0 8 0
Bombay	2,117	5 8 0	2	0 8 0
Calicut	1,645	6 0 0	2	0 8 0
Karachi	2,650	11 8 0	2	0 8 0
Nagapatam	1,280	5 8 0	2	0 8 0
Vezagapatam	833	5 8 0	2	0 8 0
Kobe	3,802	3 0 0	...	...

* Printed separately.

SUPPLEMENTARY STATEMENT No. 10.

Statement showing price per lb. of chemicals and other raw materials.

Article.	Date of Receipt.	From Where.	Quantity Received.	Invoice Amount.	Exchange Rate.	Amount.	Customs duty.	Total Landing Charges.	Agents' Commission.	Total Amount.	Cost per lb.
			lbs.			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Amorphous Phosphorus	28th December 1923	Great Britain	2,200	£ 244 2 3	1-5 $\frac{5}{8}$	3,448 9 0	517 5 0	5 0 0	86 3 0	4,057 1 0	1 13 6
" "	17th January 1927	" "	4,400	" 392 5 0	1-6	5,230 0 0	776 15 0	10 0 0	170 2 0	6,187 1 0	1 6 6
Chlorate of Potash	31st January 1924	Germany	34,160	" 431 0 11	1-5 $\frac{3}{8}$	6,018 15 0	902 14 0	45 0 0	150 7 0	7,117 4 0	0 3 4
" " "	3th February 1927	Great Britain	22,400	" 293 4 6	1-6	3,909 11 0	578 14 0	30 0 0	115 0 0	4,633 9 0	0 3 3
Antimony Trisulphide	28th December 1923	Japan	3,322	Yens 472.20	150	708 7 0	106 5 0	7 0 0	17 10 0	839 6 0	0 4 0
" "	7th January 1927	Germany	6,600	£ 138 0 0	1-6	1,200 11 0	275 11 0	15 0 0	14 13 0	1,506 3 0	0 3 8
Manganese Dioxide	28th December 1923	Japan	9,330	Yens 752.65	150	1,147 14 0	172 3 0	4 8 0	28 10 0	1,353 3 0	0 2 3
" "	3th February 1927	Germany	8,828	£ 63 15 8	1-6	850 7 0	126 3 0	5 0 0	26 4 0	1,007 14 0	0 1 9
Bichromate of Potash	18th December 1923	Great Britain	2,448	" 55 2 0	1-4 $\frac{1}{2}$	814 7 0	122 3 0	3 8 0	19 8 0	959 10 0	0 6 3
" " "	25th September 1926	" "	3,260	" 61 15 9	1-5 $\frac{5}{8}$	828 2 0	131 0 0	4 0 0	22 9 0	985 11 0	0 4 10
Glass Powder	28th December 1923	Japan	4,565	Yens 180.00	150	270 0 0	40 8 0	5 0 0	6 12 0	322 4 0	0 1 2
" "	31st January 1927	Germany	22,000	£ 90 0 0	1-6 $\frac{1}{2}$	1,197 15 0	179 12 0	24 0 0	14 8 0	1,416 3 0	0 1 0
Sulphur Flower	28th December 1923	Japan	665	Yens 530.50	150	804 11 0	...	8 0 0	20 2 0	832 13 0	0 2 0
" "	16th February 1927	Germany	4,480	£ 22 12 4	1-5 $\frac{3}{8}$	302 1 0	nil	11 0 0	nil	313 1 0	0 1 1
White Zinc	28th March 1924	Japan	448	Yens 99.85	140 $\frac{1}{2}$	141 8 0	21 4 0	1 0 0	3 8 0	167 4 0	0 6 0
" "	27th August 1926	Germany	13,230	£ 218 8 11	1-5 $\frac{1}{2}$	2,922 12 0	620 3 0	13 8 0	102 1 0	3,658 8 0	0 4 9
Glue	28th December 1923	Great Britain	13,440	" 373 0 0	1-5 $\frac{3}{8}$	5,302 0 0	780 5 0	15 0 0	130 0 0	6,127 5 0	0 7 3
" "	16th June 1926	Germany	2,240	" 60 6 2	1-5 $\frac{1}{2}$	806 15 0	121 6 0	1 12 0	25 11 0	955 12 0	0 6 10
Iron Oxide	30th April 1924	Japan	9,331	Yens 619.87	132 $\frac{1}{2}$	828 0 0	124 3 0	9 0 0	20 6 0	981 9 0	0 1 8
Potato Starch	5th May 1924	Great Britain	2,207	£ 26 19 10	1-4 $\frac{1}{2}$	388 15 0	58 6 0	4 0 0	9 11 0	461 0 0	0 3 4
" "	3rd February 1927	Holland	19,890	" 177 16 9	1-6 $\frac{1}{2}$	2,367 1 0	351 8 0	27 0 0	72 6 0	2,817 15 0	0 2 3
Paraffin Wax	2nd February 1924	Rangoon	2,240	...	...	490 0 0	...	...	...	490 0 0	0 3 6
" "	28th February 1927	"	8,854	...	...	2,075 3 0	...	...	...	2,075 3 0	0 3 9
Printing Inks	26th November 1925	Japan	2,440	Yens 2547.27	111 $\frac{1}{4}$	2,833 13 0	79 8 0	20 0 0	60 13 0	2,994 2 0	1 3 7
" "	7th February 1927	"	4,460	" 4082.68	135	5,511 10 0	273 14 0	41 0 0	nil	5,826 8 0	1 4 10
Printing Papers	26th November 1925	Japan	4,368	" 671.42	111 $\frac{1}{4}$	746 15 0	119 2 0	5 0 0	18 10 0	889 11 0	0 3 3
" "	14th December 1925	"	24,765	" 5034.46	111 $\frac{1}{4}$	5,600 13 0	891 0 0	27 0 0	140 0 0	6,658 13 0	0 3 7
Zinc Sheets	28th December 1923	Belgium	90,000	£ 1,026 14 0	1-5 $\frac{3}{8}$	14,337 0 0	2,150 9 0	140 0 0	358 4 0	16,985 13 0	0 3 0
" "	25th February 1927	"	2,595	" 55 6 3	1-5 $\frac{3}{8}$	741 6 0	111 3 0	4 0 0	17 9 0	874 2 0	0 5 4
Blue Match Papers	31st January 1924	Sweden	181,048	" 2,341 11 6	1-5 $\frac{3}{8}$	32,696 14 0	4,904 9 0	280 0 0	817 7 0	38,698 14 0	0 3 5
" " "	5th February 1927	"	16,475	" 200 1 5	1-6	2,667 10 0	395 0 0	29 12 0	83 5 0	3,175 11 0	0 3 1
Green Match Papers	31st January 1924	Sweden	42,465	" 456 2 0	1-5 $\frac{3}{8}$	6,368 13 0	955 4 0	85 0 0	159 3 0	7,568 4 0	0 2 10
" " "	5th February 1927	"	3,414	" 33 15 9	1-6	450 8 0	67 0 0	7 6 0	14 0 0	538 14 0	0 2 6

SUPPLEMENTARY STATEMENT No. 11.

There are three places from where the wood are being cut and are brought over to Vladivostock and they are :—

1. All along the boundaries of the railway line from Harbin in Manchuria to Vladivostock the distance of about 3 to 400 miles and the wood from this district is called here "Toshin" because of it being brought by the Toshin Railway Company.

2. All along the railway line from Khabarovsk in Siberia to Vladivostock distance of about 4 to 500 miles and the wood from this district is called here the "Ussuri" because of the wood obtained from the Ussuri Railway line of the Siberian Railway running toward Amur and to Europe.

3. Are those brought over from Northern Corea and from the South of Vladivostock. But these are rather poor quality and no one will try to buy them unless the wood from the other two districts are short supplied.

Vladivostock is the shipping port and the timbers are brought here for shipment and the above 1st and 2nd mentioned lot are the principal lots that are shipped in large quantities.

The Aspen tree that are growing in Manchuria are more or less thinner and these are preferred to the thick one because the latter have more waste through the rot and the reddish spot in the centre of the timber, etc. In Manchuria the climate changes from about 100 degree Fahr. in summer to zero in winter and through many storm and heavy blow with rain, etc., the tree generally get heavily beaten and older it grows more rot they get through this unpleasant beating of the climate and spoils the wood by breaking of the branches therefrom the timbers of say about foot in diameter usually arrive with large reddish spot in the centre at the pith and it is a habit of this wood to get spoiled from the centre and this is found most in the Toshin wood.

The timber wood will have less of this dark spot in the pith but still we calculate that by using this Toshin wood we could get but much less quantity of 1st class splints than from the Ussuri wood because of the dark spot in the pith of the Toshin wood is comparatively larger than the Ussuri. It often happens that in large wood which has a large dark pith the peeling work is rather difficult and the centre circle come right off and loses the catch of revolving when placed on the peeling machine. It is therefore recommendable not to buy thick ones of Toshin but from 6" to 1 foot in diameter at the most. But it will be not economical to import these thin wood alone to India because the freight rate on these thin ones will cost much more in comparison to the thick ones because the freight is charged on the waste of wood covering the Bark, etc.

The wood that are growing in Siberia along the line of Ussuri are far better in quality because all along the Eastern coast of Siberia in the Province of Primorskaya there are Mountains and no plains like that in Manchuria which protects the Tree growing in this district from storm and wind and have more regular climate all through the year.

The tree growing along this district are all very straight and has a healthy appearance having small spot in the Pith and more of the white parts. This will give more 1st quality white splints.

The timbers are mostly cut during the winter when snow is abundant and sledged to the railway station and transported to Vladivostock by rail and stored there till summer months. A very few are cut in summer because it is difficult to transport from the mountains to the station.

Knowing these facts we are trying always for the Ussuri wood and we intimately in touch with one who has the branch in Siberia.

The wood are bought on contract from the Russian Government Monopoly and the price there is nominal all round fixed by the Russian Gold Roubles which exchange rate fluctuates very fast at time which at present is about Yen 138 to 100 Roubles. Although the price is fixed in Gold Roubles there

is practically no Gold therefore the Government exchanges documents and takes security at the time of binding the contract either transverted in U. S. Gold or Japanese currency.

We have tried to entertain business with the Russian merchants direct and ship the Timbers direct from Vladivostock to Bombay but after going into details we find that it is very risky to treat business with the Russian people. Very many said experiences have been learnt by our people that no one will treat the business unless with the Government Monopoly direct and for so doing it is important to have some one in Siberia to check the measurement, the quality, etc., etc.

Mandalay Match Company, Ltd., Rangoon.

Letter dated the 18th March 1927.

We refer to yours No. 209, calling upon us to give evidence before the Board and to submit reply to the Board's questionnaire. In reply we have to refer to the arrangement made between you and our Managing Director, Mr. S. Schele, of Bombay, as per which he will, in these matters, act on behalf of this Company.

Burma Match Co., Ltd., Rangoon.

Letter dated the 18th March 1927.

We refer to yours Nos. 194, 207 and 226, calling upon us to give evidence before the Board and to submit reply to the Board's questionnaire. In reply we have to refer to the arrangement made between you and our Managing Director, Mr. S. Schele, of Bombay, as per which he will, in these matters, act on behalf of this Company.

The Rangoon Match Works, Rangoon.

Letter dated 21st March 1927.

1. The firm was established in January 1924 and is unregistered.
2. All the Capital invested is held by Indians. Only three Japanese are employed as workers in the Factory.
3. The firm undertakes the whole process of making matches.
4. Originally we started our work in the month of February 1924 at No. 24, Lower Kemmendine Road, but there was a fire in May 1926, after which we closed there and started work again in July 1926 at the present site No. 6, A. V. Joseph's Godown, Mahlwagon.
5. Present equipment is capable to produce 1,000 gross per day.
6. Our Full size Match box measures 2'2" x 1'4" x 0'6" and contains about 90 splints while the $\frac{1}{2}$ size measures 1'9" x 1'1" x 0'45" and contains about 65 splints.
7. Until May 1926 the actual output was 1,500 gross per day but since July 1926 it is about 600 gross per day.
8. The factory is situated on the bank of the creek with a railway siding at No. 6, A. V. Joseph's Godown, Mahlwagon, and we consider it is advantageously situated in all the respects (a), (b), (c), (d).
9. (a) They are inferior in point of spirits, which are easily breakable and also much less white in colour than the foreign matches,

(b) In particular markets people prefer the foreign matches as they consider them dependable throughout the year from the past experience, while the local matches are on the market for a very short period only but as time passes the people come to know the local makes and the prejudice will disappear.

(c) It is rather difficult to give difference in price sufficient to overcome the prejudice against Indian Matches but As. 12 to As. 14 would represent a fair measurement of the difference in quality.

Raw Materials.

10. It is not necessary to import wood from foreign countries but in the beginning we imported wood for splints only from Japan. The c.i.f. price of this Aspen Wood comes to Yen 90 to Yen 95 per ton of 50 c.ft. (Present Exchange Rate is Yens 100=Rs. 136). Duty is paid at 15 per cent. on the c.i.f. value and the landing and transportation charges come to Rs. 8 to Rs. 10 per ton.

11. We use Sawbya (Botanical name we are not sure) and Maulettansho (Botanical name Duabanga sonneratioides) for splints and Pine from Kalaw for veneers.

We do not make packing cases.

12. Indian wood is not as satisfactory as the Aspen wood as the latter make stronger and very white sticks. The amount of wastage also in the Indian Woods is very heavy.

13. At the present rate of output, we would require about 1,200 tons per year while according to the rate of output equivalent to the full capacity of the plant, we shall require about 2,500 tons a year.

14. About 30 c.ft. will be required to make 100 gross boxes of matches,

15. We do not require packing cases as the matches are sold in tins throughout Burma.

16. We get our supplies of wood from Kalaw, a distance of about 370 miles from the Factory; Toungoo about 166 miles away and Swegyin about 175 miles away.

17. We get our supply of wood through local contractors, who got the trees felled by manual labour and transported to the railway station by bullocks or from Shwegyin by River to Rangoon.

18. We hear in some places they pay Rs. 4 while at other places they have to pay Rs. 6 to Rs. 8 per ton.

19. We buy Sawbya at Rs. 33 to Rs. 40 per ton delivered at our works while Maulettanshe at $\frac{1}{3}$ Rs. cheaper. Kalwa Pine costs Rs. 50 per ton.

20. We have no concessions for the extraction, etc.

21. We have not found any appreciable changes in the quality of the woods.

22. We are not aware of the exact places from where the contractors are drawing the supplies.

23. We have not yet found necessary to draw supplies from new areas.

24. We think we are assured of sufficient supply for the next 10 years at least at the present rates. We have not taken any measures to plant trees suitable for Match-making.

25. No special concessions in the matter of freight by rail, river or sea for wood are given to us. We consider the present rates of freight on the Burma Railways are very high for carriage of the wood and/or for the finished matches.

Other Raw Materials.

26. Besides wood, we require Match Wax, Chemicals, Paper, Zinc sheets, Glue and Tapioca Flour or Potato Starch.

27. A separate list will be submitted of these,

28. All these are imported from foreign countries. 23A. (a), (b), (c), (d), (e), (f), will be given separately while the customs duty on all these articles is 15 per cent. except Sulphur which is free.

The following are the c.i.f. prices of the different materials:—

Articles.	Price per cwt. c.i.f.	Country of origin.
	Rs. A.	
Potassium Chlorate	24 0	Germany.
Amorphous Phosphorous	168 0	Sweden and Japan.
Manganese Dioxide	15 0	Japan.
Sulphur	15 0	"
Red Lead	42 0	"
Antimony Sulphide	30 0	"
Glass Powder	8 0	"
Infusorial Earth	6 0	"
Glue	55 0	"
Match Wax	25 0	U. S. A. also Burma Oil Co.
Paper for bundling	3 8 per ream.	Japan.
Zinc Sheets	35 0	Belgium.

The Customs duty on all these except Sulphur is 15 per cent. and the landing and transportation charges 3 to 4 per cent.

29. We think many of these except perhaps Potassium Chlorate are likely to be manufactured in India as the Industry makes progress.

Labour.

30. We do not think there is any difficulty in securing sufficient labour for the extraction.

31. We employ one expert Chemist, one Engineer and one General Supervisor having special knowledge of box-making. These were necessary in the beginning but within short time they can be replaced by Indians.

32. The Chemist is paid Rs. 300 per month, the Engineer Rs. 400 per month and the General Supervisor Rs. 500 per month with free boarding and lodging and return passage.

33. We have employed young Indians as assistants and they have learnt now much of the work.

34. We employ on the premises about 100 males and 60 females, the former getting Rs. 1-2 to Rs. 1-10 per day while the latter As. 12 to As. 15 per day.

35. The Indian labour is drawn from the vicinity of the factory.

36. The Indian labourer does improve with training as we find in some departments such as frame-filling, frames emptying and the box-filling and packing.

37. No arrangements are made by the factory for the labourers.

Power.

38. We use Crude Oil Engine of 15 B. H. P.
 39, 40, 41. Do not arise.
 42. We buy the liquid fuel from the local agents of the Indo-Burma Petroleum Co., Ltd., which cost us As. 9-6 per gallon delivered at the factory.
 43.

Market.

44. The average total consumption of Burma can be taken at about 3,000 cases of 50 gross each per month or about 150,000 gross.
 45. The demand is steady but likely to increase in proportion to the natural increase in the population.
 46. We sell our matches mostly in Burma and sometimes export to Madras, Coconada and Akyab.
 47. No.
 48. (a) Nearly half of the Burma market is served by the imported matches from Japan and Sweden.
 (b) There appear still some illicit importation of foreign matches on the frontiers of Burma.

Competition.

49. The competition is keenest both from Japan and Sweden but now-a-days more from the latter.
 50. In point of sales the imported matches compete with both Indian matches made from indigenous woods and imported woods.
 51. We do not know exactly the prices during 1918-22, those in 1922-26 were Rs. 3-6 per gross to Rs. 3-2 depending upon the quality and the brands.
 (2) We realised for matches made from local wood Rs. 1-12 to Rs. 1-14.
 (3) And for matches made from imported wood Rs. 2 to Rs. 2-3. We know about the Japanese matches, which are imported at Rs. 45 to Rs. 50 per case of 50 gross on which they pay Rs. 75, *i.e.*, at the rate of Rs. 1-8 per gross as customs duty and about Re. 1 per case as the landing charges.
 52. From the importing houses and the customs statistics.
 53. In Japan the present prices at which the matches are sold for export are unremunerative and are below the lowest prices current in the home markets.
 54. The Indian manufacturers will be temporarily at a disadvantage in respects a to j for the next say 5/6 years. The customs duties, however, on the imported raw materials could be easily set aside if the Government so decide.

Equipment.

56. Yes, our present factory is an economic unit of production. In our opinion a mill with a daily output of 600 gross can make an economic unit.
 57. About 30 per cent. of the total capital outlay has been incurred on plant and machinery.
 58. (a) We have got following machines:—
 One Splints Peeling Machine.
 One Splints Chopping Machine.
 Two Veneers Peeling Machines.
 Three Lines Pressing Machines.
 Two Veneers Chopping Machines.
 Two Splints Levelling Machines.
 Eight Frames Filling Machines.
 Three Frames Emptying Machines.
 One Chemicals Dipping Apparatus.

All these are Japanese Makes and we began to use them since July 1926 though they were in use for sometime before.

(b) There are no special arrangements with the suppliers of machines in foreign countries.

59. Though the plant is not an up to date one as commonly understood on the Continent, it is quite efficient to enable us compete successfully with the foreign manufacturers.

(b) All our match boxes are made by the females in their homes we supplying them with cut veneers of the proper size and cut pieces of paper, while in the factory excepting the splints and veneers Peeling and Chopping, everything else is carried on by manual labour.

60. No.

61. Sundry repairs are carried on locally.

Capital Account.

62. The block value for the Plant and Machinery stands at Rs. 32,000 while Rs. 70,000 under other miscellaneous assets.

63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74. Nil.

Works cost.

75. We give below the average cost of making 6 tins containing 50 gross.

	Rs.	A.	P.
Wood for splints and boxes 15 c.ft. at Rs. 60 including wastage	18	0	0
Labour for making splints, veneers and boxes	10	8	0
Cost of Cut Paper for the boxes	2	4	0
Cost of chemicals including wax	12	0	0
Cost of small, big and tin labels	2	6	0
Cost of packing paper	0	8	0
Cost of Zinc Sheets	4	8	0
Cost of Power, lubricating oils, etc.	0	12	0
Labour for frame-filling, emptying, box-filling, packing, tinning, side-painting and other fixed salaried labour including the foreigners	14	0	0
Miscellaneous including rent, insurance, office, repairs, travelling, advertising, etc.	8	0	0
Depreciation of the machinery	1	0	0
TOTAL	73	14	0

76. It has increased since the less than full capacity production as the rent for the factory premises, the foreign staffs salaries and the office expenses are fixed items and the fuller the production, the cheaper the fixed items cost.

77. No.

78. No.

79 and 80. Nil.

81. About Rs. 100,000.

82. Not necessary to borrow any capital.

83. If at all forced to borrow, the interest payable will have to be paid from 12 to 15 per cent.

84. Nil.

85. Presently stocks worth about Rs. 45,000 are held but formerly about Rs. 25,000 to Rs. 30,000. Between 60 to 90 days elapse before the payment is obtained from the buyers.

86. No.

87. No.

88, 89, 90. No.

91. A dividend of about 12 per cent. per year.

92. No.

93. 12 per cent.

94. All the three conditions laid down by the Fiscal Commission are fully satisfied in the case of this Industry. (A) There is abundant supply of wood in the forests of Burma and India too and there is any amount of labour while the home market is undoubtedly a very large market indeed.

(B) As can be very easily seen the present growth of the Match Factories in India and Burma owes mainly to the Customs Duties of Rs. 1-8 per gross introduced since 1923 while before that period although people tried here and there to establish match factories, they did not grow on account of the heavy foreign competition. So for some time to come until the labourers become skilfull in the new work, this industry requires protection.

(C.) Eventually the industry will be able to face world competition.

95. Both the conditions are satisfied.

96. The box making can be very easily carried on on the cottage industry lines, thus giving additional work to the women folk of the villages without forcing them out of their houses in search of work.

97. The Protection received at present owing to (a) and (b) is to a very great extent counter-acted by the higher cost of manufacture, the industry being quite in its infancy but as time passes, it has got every chance of reducing the cost of production and the present duties will give good protection.

98 and 99. No. The existing duties will suffice.

The Moslem Match Factory.

Replies to questionnaire.

1. December 1925. Private unregistered firm.
2. Rs. 1,50,000 (Rs. one hundred and fifty thousand) invested by me. No Europeans are employed.
3. The whole process of manufacture is undertaken.
4. 11th December 1925. The factory was started by Memon Industrial Company in the beginning of 1924. They could not work it profitably and sold to the other party, who sold the same to me, in December 1925.
5. 75 tins of matches each containing 1,200 boxes per day of 10 hours.
6. Only full size box, the rough measurement is $2\frac{1}{2}'' \times 11\frac{5}{8}'' \times 1\frac{3}{8}''$. 75 splints in each box.
7. 57,941 gross for one year from March 1926 to February 1927 (6,953 tins of matches).
8. The factory is situated at 87, Prome Road, in Rangoon District.
(a) Yes. (b) Yes. (c) Yes. (d) Yes.
(a), (b), (c), and (d) are some of the important factors in selecting a site for a Match Factory. Further the factory should be situated on a river bank where fresh water is abundantly available.
9. (a) Matches manufactured from Indian matchwoods are inferior to foreign matches as the Indian matchwoods are inferior to foreign matchwoods available in Poland and Siberia.

Indian matches manufactured from foreign matchwoods are not inferior to foreign matches. The Pine woods yield almost the same quality of box veneers as the Japanese Pine.

(b) No.

(c) The Swedish matches are selling at Rs. 21-12 per tin of 1,200 boxes whereas my matches sell at Rs. 11-8 to Rs. 12 per tin. The difference in price fairly represents the difference in quality.

Raw materials.

10. (a) No. (b) No. (c) No.

11. (a) Shawbye Mauletanshe (*Sarcocephalus Cordatus*). (b) Letpan (*Bobax Malabaricum*). Didok (*Bobax Insigne*).

(c) Same as (b).

The above mentioned woods are fairly satisfactory though the quality is inferior to foreign woods. The Siberian and Polish matchwoods are fine-grained and white whereas local timbers are not so much fine-grained and white.

13. Considering 50 tins of output of the present rate, the 75 tons of timbers are required per month, i.e., 900 tons per year. 1,350 tons per year considering 75 tins for full capacity.

14. About 34 c. ft.

15. $3\frac{3}{4}'' \times 2\frac{1}{2}'' \times 2'$ (outside measurement) made of $\frac{3}{8}''$ thick plan. Each case requires about 2.26 c. ft. of timber. 50 gross boxes are packed in the case.

16. Wanetchaung, Thanachaung and Thugyi (Insein District), Moulmein District Shan States and Myaunglebin.

17. Trees are cut by the saw, brought to the station by buffalo or elephant and carried by the railway wagons to the nearest station wherefrom they are carried to the factory.

18. Rs. 4 to Rs. 12-8 per ton. Royalty paid by the suppliers.

19. Rs. 35 to Rs. 42 per ton.

20. No.

21. Often the suppliers have to wait long owing to delay of the forest people to pass the timber and then again for want of timber wagons supply the timbers are delayed in the way. Owing to these reasons the timbers are often dried, cracks and becomes useless.

22. It has not been found necessary to draw supplies from greater and greater distances.

23.

24. Yes, I would suggest the Local Governments (Provincial) should undertake plantation of trees suitable for match industry so as to actively encourage the industry.

25. No. Yes.

26. Flour, Glue, Gum Senegal, Gum Traganth, Lamp-black, Potash Chlorate, Potash Bichromate, Sulphur, Antimony Trisulphate. Amorphous Phosphorous, Glass Powder, Infusorial Earth, Red Oxide, Amber, Caput Mortem. Manganese Dioxide, Litharge, Red lead, Zinc Oxide, Zinc sheets, labels, etc. Requirements will depend upon the output.

27. Different proportions of chemicals are used in different seasons. So the quantity can not be stated.

28. Almost all. Indian Glue, Gum Senegal, Burma Parrafin and Calcutta Glass powder are occasionally used. Imported articles are brought from England, Germany and other continents.

29. (a) All except Potash Chlorate. Raw materials for the manufacture are abundantly available.

30. No.

31. Engineer and chemist are necessary for further improvement.
32. No.
33. The labourers are trained by the Manager.
34. 80 men, 62 women and 6 children. Men are salaried whereas women and children are contract labourers. Men get 12 annas average, women 12 annas and children 6 annas.
35. Both.
36. Yes. Output gradually increasing.
37. I intend to improve the quarters of the labourers.
38. Steam.
- 39.
40. Fuel.
41. About Rs. 350 per month.
42. Within a distance of 5 miles.
43. No, No.
44. Can be obtained from the Custom's import list.
45. It may increase if the Government encourage the people in the direction of smoking cigars.
46. Burma. The factory is in the chief town.
- 48.
49. Sweden and Japan.
50. Both.
56. Yes. 75 tins of matches.
58. My machineries are German make (Maker.....A. Roller) and were originally bought from by the Illich Match Factory 15 years before.
59. (a) Yes. (b) About 100 outside girls earn their livelihood by making my boxes by hand. Box-filling, side-painting and packetting are also done by hand. The total labour charge for these items will be about 14 annas per tin of 1,200 boxes. In case of using machineries cost will be less but on getting the labour properly trained, the rate may be made less.
60. (a) Yes. (b) Yes. I intend to fit a side painting machine.
61. Spare parts are made in local workshops according to order.
81. (i) 70,000, (ii) 100,000.
82. It is necessary to borrow.
94. Yes. (b) Yes. (c) After some years. Timber and fuel are abundant in India. The supply of labour is also abundant. For want of industrial developments, Indian labourers do not find scope for livelihood. Thus the match Industry has been encouraged by the Japanese Government and many other Governments in Europe. The present nationalised Government of India should prove that it is so by protecting the Indian vested interest.
95. Yes. (b) Yes.
96. Very large number of people can not get employment in India but if encouragement is given to this industry, many large number of them will get work for earning their livelihood. The Board should see the outside work of the labourers engaged in this industry. Large number of girls and boys are engaged in box making in their homes.
97. To large extent. (b) Not appreciable.
98. All chemicals and papers necessary for match manufacture should be free of duty to the manufacturers. Special concession rate should be given to the manufacturers of matches in case of railway and river transport in the coast transport.

Rates of articles.

Name.	Per unit.	C.i.f. rate.	Exchange.	Rs.	Duty.	At Works rate.	Per unit.
					Per cent.	Rs. A. P.	
Litharge	1 Picul .	Yen. 30'00	137	41 2 0	15	40 0 0	Per cwt.
Lamp Black	100 Lbs. .	" 43'00	137	57 8 0	15	74 0 0	"
Plaster of Paris	" .	" 9'40	137	12 14 0	15	15 8 0	"
Bichromate Potash	1 Ton. .	£44 0 0	1/5 $\frac{1}{2}$	595 0 0	15	34 9 0	"
Powder Glue	" .	£58 0 0	1/5 $\frac{1}{2}$	782 0 0	15	45 3 0	"
Powder Antimony	" .	£57 0 0	1/6 $\frac{1}{2}$	760 0 0	15	44 4 0	"
Powder Glass	" .	£ 7 4 9	1/6 $\frac{1}{2}$	96 5 0	15	5 12 0	"
Antimony Sulphide	100 Kins. .	Yen. 25'0	134'00	40 5 0	15	38 0 0	"
Manganese Dioxide	1 Ton .	£18 3 0	1/6 $\frac{1}{2}$	241 15 0	15	14 3 0	"
Chlorate of Potash	" .	£30 10 0	1/6 $\frac{1}{2}$	411 0 0	15	24 0 0	"
Amorphous Phosphorous	" .	£219 0 0	1/6 $\frac{1}{2}$	2,947 0 0	15	170 5 0	"
Infusorial Earth	100 Lbs. .	Yen. 4'80	125'00	6 0 0	15	7 14 0	"
Timber	1 Picul .	" 7'8	125'00	9 12 0	15	9 4 0	"
Caput Mortem	1 Ton .	£14 0 0	1/6 $\frac{1}{2}$	168 0 0	15	11 14 0	"
Potash Dextrine	2 Cwts. .	£ 6 16 6	1/6	91 0 0	15	53 0 0	"
Sulpher Flowers	1 Ton .	£15 4 0	1/6	198 12 0	NiZ	10 4 0	"
Zinc Oxide	1 Cwt. .	£ 2 12 6	1/6	34 8 0	15	39 6 0	"
Zinc Sheets	1 Ton .	£51 0 0	1/6 $\frac{1}{2}$	680 3 0	15	39 3 0	" (75 Pcs. and 150 Pcs.)
Labels Small	1,000 .	£ 0 0 2	1/6 $\frac{1}{2}$	...	15	14 0 0	10,000 Labels.
Labels Big	1,000 .	£ 0 " 3 $\frac{1}{2}$	1/6 $\frac{1}{2}$	...	15	37 0 0	100,000 "
Wrapping Papers	Ream .	Yen. 5'80	134	7 2 0	15	8 3 0	Per ream. "
Cut Papers	10,000 .	" '90	134	1 2 0	15	1 6 0	" 10,000.

Mysore Match Manufacturing Company, Bangalore.

Letter dated 22nd March 1927.

We are in receipt of your letter of the 7th instant with a copy of the questionnaire drawn up by the Tariff Board in connection with the Board's enquiry into the match-making industry.

We regret, however, to inform you that as our factory will be just starting manufacture, we are not in a position to give you the information desired by your Board.

The South Indian Match Factory Ltd., Madras.

Letter dated 31st March 1927.

I have the honour to acknowledge receipt of your letter No. 209, dated 7th instant enclosing a copy of the questionnaire drawn up by the Tariff Board in connection with the Board's enquiry into the Match-making Industry and to send herewith as therein desired answers to the said questionnaire with six spare copies.

The answers may not be as complete as they should be owing to the fact that I have been bed-ridden for the last 1½ months and I had to dictate the answers from my bed. I therefore trust that the Board will excuse any shortcomings in the answers and extend their full sympathy to this Company's cause.

ANSWERS TO QUESTIONNAIRE.

Introductory.

1. The South Indian Match Factory Limited, is a public registered Company and was formed in August 1912, but started the construction of the Factory in 1922.

2. The total capital invested in this Company is all by Indians. The total number of Directors is seven, and they are all Indians. No Europeans are employed. There was a German expert obtained to fit up the Factory and machinery. He remained in the service of this Company from January 1922 to October 1924. Besides him no other European has ever been employed by this Company in any capacity.

3. This Company undertakes the whole process of manufacture of matches.

4. The factory commenced work in August 1924.

5. The full capacity of our factory as at present equipped is 700 gross per day of 10 hours.

6. The dimensions of the match boxes manufactured are of 2.25" length, 1.45" breadth and .5" depth and the average number of sticks in each box is 60.

7. The output of the Factory is as under:—

From August 1924 to July 1925—26,839 gross.

From August 1925 to July 1926—22,094 gross.

8. The factory is situated at Kalamkannu about 2½ miles from the Tenmalai Railway station on the South Indian Railway and is advantageously situated in respect of (a) and (b) vicinity to the area from which our timber and firewood are drawn, (c) vicinity to important markets and (d) close to the bed of a river which has abundant supply of water. The important factor in selecting the site of a match factory in India is that it commands facilities in respect of raw materials such as timber, firewood and water and its proximity to the Railway Station.

9. (a) It may be so. But the matches manufactured by this Company are second to none except as regards the colour of the veneers which are not purely white. (b) There appears to be some prejudice apart from the question of quality against Indian matches in that practically all markets are controlled by foreign exploiters. (c) The difference must be such as we enable the indigenous industries to compete with the foreign manufacturers and probably Rs. 1-8-0 per gross represents a fair difference.

Raw Materials—Wood.

10. The woods required for (a) splints, (b) veneers and (c) packing cases is all available in the forests in the midst of which the Company's factory is situated. We do not import any wood from any foreign countries.

11. We use Indian wood as under: (a) for splints, (b) veneers and (c) for packing cases.

12. Yes. We have found Indian wood as satisfactory as imported wood in all respects except as regards colour and fibre. Splints from Indian wood cannot be made as thin as from foreign wood and its colour is not quite white.

13. Our annual requirements of wood are:—(a) splints, (b) veneers, (c) packing cases, about 9,600 cubic feet.

Splints and veneers.—Elavu (Bombax malabaricum), Cheeni palai, pyne and various other kinds of trees.

Packing cases.—Vankottah and Uravu and other kinds of trees.

14. About 44 cubic feet of wood.

15. The standard size of the packing case is length 2' x 9", breadth 2' and depth 1' x 3½" thickness of the plank being ½". Twenty-five gross of matches are packed in one case.

16. The factory draws its main supply of wood from the surrounding areas about 5 to 8 miles distant. It is much regretted that a map of the factory and the areas site from which the supply is drawn is not available.

17. The trees required are felled by local coolies engaged by the factory and are transported from the forest to the factory by floating them down the river and by country carts.

18. The royalty paid to the Government is quarter anna to half anna per cubic foot.

19. The cost per 50 cubic feet during the past four years is as under:—

1923—Nil.

1924—Nil.

1925 and 1926—Royalty, labour employed on extraction, freight to factory and miscellaneous charges, Rs. 12-12-0, nearly.

20. The terms of concession for extraction of wood are as per copy of concession enclosed and they are favourable.

21. Yes.

22. Yes. The supply of wood has been found constant but as time passes on and demand increases and supplies diminish in certain areas it will be necessary to go to longer distances. There are some petty match factories in the shape of home industries but we find no competition from them. But we do not grudge them.

23. Not yet.

24. Yes. We propose to plant trees suitable for match-making within proximate distance from the factory.

25. No.

Other raw materials.

26. Paper and chemicals. Total requirement of each in one year depends upon the output which during the first two years has not been much owing to our not being able to secure suitable agents for the distribution of our output.

27. The quantity of these materials required for each year is as under:—

	Kilos.	Per 100 gross.
Zinc, white	242.9	1.1
Glass powder	444.3	2.1
Antimony sulphide	92.5	.4
Gum Tracaganth	3.5	.02
Gum Arabic	155.8	.7
Manganese dioxide	550.9	2.5
Whitening	54.7	.2
Chlorate of potash	1,758.2	7.9
Bichromate of potash	106.7	.5
Chromate of Barite	8.7	.04
Leather Glue	383.1	1.6
Italian sulphur	281.9	1.3
Phosphorus	150.0	.7
Paraffin	4,235 lbs.	19.3
Colour Rhodamine	15 "	.07
Blue paper, etc.	Rs. 3,513-0-6	Rs. 15-15-6

28.

Port of importation is Madras.

The cost of chemicals, etc., per gross is As. 8, nearly.

(a) Imported from England and Germany.

(b) and (c) Nil.

Cost price per Kilogram of chemicals recently imported including freight, insurance, landing charges, transport charges and customs duty are:—

	Rs.	A.	P.
Gum arabic	1	0	6
Manganese dioxide	0	7	6
Sulphur	0	4	11
Glass power	0	3	3
Pot. Bichromate	0	13	5
Umber	0	5	8
Glue	1	3	3
Phosphorus	4	2	11
Antimony sulphide	1	6	11

Labour.

29. No.

30. There is no difficulty.

31. Not necessary.

32. None.

33. The whole labour consists of Indians. They are paid and trained in the factory itself.

34. Between 50 and 60 consisting of about 40 men on an average cooly of 12 annas to Re. 1-4-0 and 20 children on an average cooly of 6 to 8 annas. No women are employed.

35. Yes. The Indian labour is drawn from the vicinity of the factory.

36. Yes. But we have no record to indicate the improvement.

37. Free quarters have been provided close to the factory and medical assistance is rendered.

Power.

38. Steam.

39. No.

40. Firewood and scrapings of the factory. Firewood is available in sufficient quantities.

41. About 2 tons per day on an average.

42. Within about 5 or 6 miles of the factory.

43. No. We have a concession from the Travancore Government (*vide* copy referred to in answer 18).

Market.

44. Not available.

45. Yes. The demand has risen gradually.

46. Madras Presidency.

47. Southern districts.

48. (a) Figures not available.

(b) Yes.

Competition.

49. Sweden and Japan.

50. No.

51. (1) Not available.

(2) Rs. 1-8-0 to Rs. 1-12-0 per gross.

(3) We have no figures.

52. From importing firms.

53. Yes, for reasons already explained in our representation, dated 24th December 1926.

54. (a—c) Yes.

(d) Yes, in respect of chemicals and paper.

(e—i) Yes.

55. (a), (b), (g), (h) may be regarded as permanent and the rest as temporary disadvantages which will not operate for long.

Equipment.

56. Yes. About 400 gross a day.

57. About 50 per cent.

58. (a) Self-acting cross-cut saw. Cross-cut circular saw. Peeling machines. Splint chopping machine. Machines for cutting box-veneers. Splint shaping machines. Splint drying cylinder. Splint polishing and cleaning machines. Splint levelling machine. Outer box and inner box machines. Labelling machines. Ideal machine. Paraffining apparatus. Rotating dipping machine. Match box painting and filling machines. Packetting machines. Cone grinders. Igniting machines. Steam paste cooking machines. Knife grinding machines.

(b) No special agreement.

59. (a) Yes.

(b) Transport of materials into the factory and feeding the various machines and making packing cases and packing.

60. (a) No.

(b) Yes. Later on by adding further machines to manufacture different sizes.

61. None.

Capital Account.

62. (a) Nil.

(b) Nil.

(c) Buildings, Rs. 66,324-7-7.

(d) Plant and machinery, Rs. 1,28,622-2-6.

(e) Other miscellaneous assets, Rs. 86,548-5-8.

63. Yes.

Depreciation written off on buildings since this year, Rs. 3,443-6-0.

Depreciation written off on machinery, Rs. 13,695-8-0.

Depreciation on furnitures, Rs. 91-8-0.

64. Yes.

65. About the same as it costs us. I do not think there will be much difference.

66. About 1s. 3d.

67. (a) Rs. 3,00,000 Authorized capital.

(b) Rs. 2,28,925 Subscribed capital.

(c) Rs. 1,82,625 Paid up capital.

All ordinary shares and the balance is borrowed capital.

68. We have no preference shares.

69. No deferred shares.

70. No dividends have so far been paid.

71. None so far.

72. None.

73. None.

74. This has not been worked out yet.

Works cost.

75. Forms filled up and annexed.

76. Yes, chiefly labour, interest and steam. About 50 per cent.

77. Yes.

78. No.

Overhead charges.

(i) Depreciation.

79. Depreciation. None so far.

80. Unable to give the information.

(ii) Working capital.

81. (1) About Rs. 25,000.

(2) About Rs. 50,000.

82. It has been necessary to borrow additional capital for the purpose.

83. About Rs. 1,30,000, the interest being at the rate of 9 to 12 per cent.

84. This has not been done so far as the work has been more or less in an experimental stage.

85. On an average of Rs. 25,000. About 3 or 4 months.

86. Yes, of raw materials. The average value of stock is Rs. 15,000.

(iii) Head office expenses and Agents' commission.

87. Yes. The Head office is at Madras and the local management office is at Tenmalai.

88. The annual amount of Head office expenses is about Rs. 2,500.

(b) Agent's commission, nil.

89. Nil.

90. Same as 88 (1), viz., about Rs. 2,500.

Manufacturer's Profits.

91. About 12 per cent.

92. About 10 per cent.

93. 12 per cent.

Claim for Protection.

94. (a-c) Yes.

95. (a-c) Yes.

96. Yes, for the reasons that it could be developed into a home industry during spare period of agriculturists and thus enable them to secure an item of absolute home necessity at cheap cost.

97. (a) To the extent of the duties.

(b) To the extent of that these charges represent.

98. The amount of the existing customs duties on matches is absolutely necessary and the entire abolition or a substantial reduction in the import and customs duties on chemicals, paper and other raw materials imported from foreign countries.

99. As an alternative a bounty to the extent of the existing customs duties on matches plus the customs duty on materials imported from foreign countries.

Raw Materials—Wood.

Answer to question No. 11—

Very suitable trees for splints and boxes.

Species.	Seigniorage rates per cubic foot.		
	Rs.	A.	P.
Antiaris toxicaria	0	1	0
Mastixia pentandra	0	1	0
Elasocarpus serratus	0	2	0
Sterospermum chelonoides	0	1	0
Ormosia travancorica	0	1	0
Chrysophyllum Roxburghi	0	1	0
Evodia Roxburghiana	0	1	0
Albizia stipulata . . . . .	...	
Semicarpus travancorica	0	1	0
Symplocos macrocarpa	0	1	0
Litsea coriacea	0	1	0
Actinodaphne madraspotana	0	1	0
Buchania latifolia	0	1	0
Pterospermum rubiginosum	0	2	0
Magnifera indica	0	2	0
Stephegyne parvifolia	0	1	0
Artocarpus Lakoocha	0	4	0
Melia dubia	0	2	0
Bombax malabaricum	0	2	0
Allanthus malabarica	0	2	0
Anthocephalus cadamba	0	1	0
Hymenodictyon excelsum	0	1	0
Smelina arborea	0	4	0
Myristica malabarica	0	2	0
Trewia nudiflora	0	2	0

Suitable for boxes, not suitable for splints.

Canarium strictum	0	2	0
Semicarpus auriculata	0	1	0
Elaeocarpus oblongus	0	2	0
Cinnamomum Zeyanicum	0	1	0
Millettia velutina	0	2	0

Species.	Seigniorage rates per cubic foot.		
	Rs.	A.	P.
Ficus Beddomei	0	1	0
Ficus Benjamina	0	1	0
Ficus Glomerata	0	1	0
Ficus religiosa	0	1	0
Ficus Tjakela	0	1	0
Ficus colosa	0	1	0
Ficus hispide	0	1	0
Diospyros Faniculata	0	1	0
Nephalium longana	0	1	0
Totrameles nudiflora	0	2	0
Eugania hemispherica	0	1	0
Flacurtia Cataphraete	0	1	0
Aporosa acuminata	0	1	0
Callophyllum Wightianum	0	4	0
Pithecolobium bigeminum	0	1	0
Humboldtia Vahiana	0	1	0
Sterculia urens	0	2	0
Sterculia villosa	0	2	0
Mallohis philippinensis	0	1	0

Suitable for splints, not suitable for boxes.

Odina Wodier	0	2	0
Spendias Mangifera	0	1	0

Answer to question No. 75—

FORM I.—Statement showing total expenditure on the production of matches during the last four years.

—	1922-23.	1923-24.	1924-25.	1925-26.
			Rs. A. P.	Rs. A. P.
1. Cost of wood for splints and veneers.	4,410 7 0	2,217 12 2
2. Cost of paper	3,513 0 6
3. Cost of chemicals	10,920 2 4	5,192 3 8
4. Cost of other raw materials	791 8 10	685 8 11
5. Factory labour	12,633 14 0	11,290 8 2
6. Power and fuel	1,491 0 0	788 13 3
7. Ordinary current repairs and maintenance of buildings, plant and machinery.	178 11 10	1,158 5 6
8. General services, supervision and local office charges.
9. Miscellaneous, e.g., rent, municipal tax, insurance, etc.
10. Cost of packing cases	2,143 15 10	2,896 4 6
TOTAL	31,569 11 10	27,743 8 8
			Gross.	Gross.
Total production of matches for the year.	26,835	22,094

FORM II.—Statement showing works cost per gross of matches.

	1922-23.	1923-24.	1924-25.		1925-26.	
			Rs.	A. P.	Rs.	A. P.
1. Cost of wood for splints and veneers.	0	2 8	0	1 8
2. Cost of paper for labels and wrapper.	}	0 6 6	}	0 2 7
3. Cost of chemicals				0 3 9
4. Cost of other raw materials	0	0 6	0	0 6
5. Factory labour	0	6 11	0	8 2
6. Power and fuel	0	0 11	0	0 8
7. Ordinary current repairs and maintenance of buildings, plant and machinery.	0	0 1	0	0 10
8. General services, supervision and local office charges.	
9. Miscellaneous, e.g., rent, municipal taxes, insurance, etc.	
10. Cost of packing cases	0	1 3	0	2 1
TOTAL	1	2 10	1	4 3
Credit of for materials recovered (if any).	
			Gross.		Gross.	
Total production of matches for the year.	26,839		22,094	

AGREEMENT.

ARTICLES OF AGREEMENT made the Twenty-sixth day of One thousand nine hundred and twenty-three BETWEEN THE SOUTH INDIAN MATCH FACTORY, LIMITED, a Company incorporated under the Indian Companies Act VI of 1882 and having its Registered Office at No. 11, Mount Road, Madras (hereinafter called "The Company") of the one part and DEWAN BAHADUR T. RAGHAVIAH, ESQ., B.A., DEWAN OF TRAVANCORE, acting for and on behalf of the Government of His Highness the Maharaja of Travancore (hereinafter called "The Government") of the other part.

WHEREAS These Presents are supplemental to the Articles of Agreement (hereinafter called "The Principal Agreement") bearing date the twenty-first day of December One thousand nine hundred and twelve and made between the Company of the one part and Dewan Bahadur P. Rajagopalachariar, Esq., M.A., B.L., C.I.E., then Dewan of Travancore, acting for and on behalf of the Government AND WHEREAS under the Principal Agreement the Government with a view to enable the Combay to start and work

a Match Factory in Travancore, agree to allow to the Company certain concessions in the matter of land, timber, soft wood and fuel subject to the terms, covenants, conditions and provisions therein contain AND WHEREAS under the said terms, covenants, conditions and provisions in the Principal Agreement contained, the Company was bound to start buildings and other operations within three years of the date of Principal Agreement AND WHEREAS for reasons beyond its control the Company not being in a position to keep to the terms of the contract contained in Clause 2 of the Principal Agreement the Company did apply for and obtain from the Government repeated extensions of time for acting up to the contract and the last of such extensions expired on the 31st of December 1922 AND WHEREAS though satisfactory progress has been made with regard to the construction of buildings and the installation of machinery the Company has not yet been able to work the factory AND WHEREAS under such circumstances differences arose between the Company and the Government, the Company insisting on the fulfilment by the Government of the contract for a period of twelve years from 1923 and the Government contending that the contract has ceased to subsist and cannot be given effect to AND WHEREAS in view of the facts that the Company knew at the time of the Principal Agreement that the Government did not want to commit themselves to an agreement likely to last beyond about fifteen years from the date thereof and the Government would incur heavy loss if the terms of the Principal Agreement were enforced as also in view of the facts that on the strength of the Principal Agreement and repeated extensions of time granted thereafter by the Government as hereinbefore mentioned the Company did invest large sums of money in putting up the necessary buildings and importing the necessary machinery and the Company would be put to considerable loss if the Government were to withdraw from the Principal Agreement now and with a view to an amicable settlement of the said differences between the Company and the Government and the avoidance of loss to either party V. Desikachari, Esq., the Managing Director of the Company, acting for and on behalf of the Company has agreed that the Principal Agreement be modified in such particulars as are hereinafter mentioned. AND WHEREAS the action of the said V. Desikachari, Esq., in having so agreed on behalf of the Company to so modify the Principal Agreement has been duly sanctioned by a resolution passed at the meeting of the Board of Directors of the Company held on the eleventh day of July One thousand nine hundred and twenty-three.

NOW THESE PRESENTS WITNESS and it is hereby mutually agreed as follows:—

1. That Clause 7 of the Principal Agreement shall be deemed to have been cancelled and the following substituted instead:—

That for the purpose of ensuring an adequate supply of soft wood to the Company for manufacturing splints, match boxes and packing cases in the factory the Government doth hereby agree with the Company that the Government will for a period of twelve years from the first day of September One thousand nine hundred and twenty-three permit the Company to extract at the Company's own cost and expense from the forests of the Government soft wood of the species mentioned in the schedule hereto annexed or such other species as may hereafter be tested and found suitable for the purpose in such quantities as may be required by the Company from time to time Provided however the quantities so extracted shall not in the aggregate exceed a maximum of three hundred and sixty thousand (3,60,000) cubic feet of wood during the first three years, one million and eighty thousand (10,80,000) cubic feet of wood during the next five years and eight hundred and sixty-four thousand (8,64,000) cubic feet of wood during the last four years exclusive of the bark.

2. That Clause 8 of the Principal Agreement shall be deemed to have been cancelled and the following substituted instead:—

That the extraction of soft wood by the Company from the Government forests as hereinbefore mentioned shall be made in such areas as may be

selected for the purpose by the Conservator of Forests of the Government due regard being had by the said Conservator in the selection of such areas to the means available for the transport of such wood to the Company's factory and the cost of such transport, and in the event of a difference of opinion between the Company and the said Conservator of Forests such differences shall be settled by the Government whose decision in the matter shall be final. Such extraction of soft wood by the Company from the Government forests shall also be subject to the supervision of the Forest Department of the Government and the agency employed by the Company to carry on such extractions shall be bound to carry on work under the general control of the Forest Department and on the lines laid down by that Department so as to obviate all possible risk of injury to the forest.

3. That clause 9 of the Principal Agreement shall be deemed to have been cancelled and the following substituted instead:—

That the Government doth likewise agree with the Company that the Government will for a period of twelve years from the first day of September One thousand nine hundred and twenty-three permit the Company to extract at the Company's own cost and expense from the forests of Government all such quantities of fuel as may be required by the Company for use in the factory and for the domestic consumption of the Company's employees, agents, workmen and servants residing at or near the Company's premises.

4. That clause 10 of the Principal Agreement shall be deemed to have been cancelled and the following substituted instead:—

That the extraction of fuel by the Company from the Government forests as hereinbefore mentioned shall be subject to the same limitations, conditions, supervision and control as are hereinbefore prescribed in clause 2 hereof in the case of soft wood.

5. That clause 15 of the Principal Agreement shall be deemed to have been cancelled and the following substituted instead:—

That the Company doth hereby covenant and agree with the Government that in respect of the soft wood permitted by the Government to be extracted by the Company from the Government forests as hereinbefore mentioned the Company will pay seigniorage to the Government according to the undermentioned scale, that is to say, 25 per cent. of the now existing seigniorage rates for the first four years, 50 per cent. of the said rates for the next four years and 75 per cent. of the said rates for the last four years of the existence of These Presents, the said now existing seigniorage rates being mentioned and specified in respect of each species of wood described in the schedule hereto annexed; in the case of the species of soft wood which are not mentioned in the said schedule and which may hereafter be tested and found suitable for the said purpose the rates of seigniorage will be fixed by the Government and the Company shall pay the same percentage of such rates as will be payable if such species and rates were included in the said schedule. The Company shall also be bound to accept and pay seigniorage to Government on all such soft wood measured out to the Company by the said Forest Department.

6. That clause 16 of the Principal Agreement shall be deemed to have been cancelled and the following substituted instead:—

That the Company doth hereby covenant and agree with the Government that in respect of all fuel permitted by the Government to be extracted by the Company from the Government forests as hereinbefore mentioned, the Company will pay to the Government seigniorage according to the undermentioned scale, that is to say, 25 per cent. of the now existing seigniorage rate of British Rupee One and Annas Eight per ton for the first four years, 50 per cent. of the said rate for the next four years and 75 per cent. of the said rate for the last four years of the existence of These Presents.

7. That subject only to the variations herein contained and such other alterations, if any, as may be necessary to make the Principal Agreement consistent with These Presents, the Principal Agreement shall remain in full force and effect and shall be read and construed and enforceable as if the

terms of These Presents were inserted therein by way of addition or substitutions as the case may be.

IN WITNESS WHEREOF the parties to These Presents have hereunto set their hands and seals the day and year first above mentioned.

THE SCHEDULES REFERRED TO IN THE FOREGOING ARTICLES OF AGREEMENT.

Very suitable for Splints and Boxes.

Species.	Seigniorage rates - per cubic foot.
Antiaris toxicaria	0 1 0
Mastixia pentandra	0 1 0
Elaeocarpus serratus	0 2 0
Sterospermum chelonoides	0 1 0
Ormosia travancorica	0 1 0
Chrysophyllum Roxburghii	0 1 0
Evodia Roxburghiana	0 1 0
Albizia stipulata . . . . .	...
Semicarpus travancorica	0 1 0
Symplocos macrocarpa	0 1 0
Litsaea coriacea	0 1 0
Actinodaphne madraspatana	0 1 0
Buchania latifolia	0 1 0
Pterospermum rabuginosum	0 2 0
Mangifera indica	0 2 0
Stephegyne parvifolia	0 1 0
Artocarpus Lakoocha	0 4 0
Melia dubia	0 2 0
Bombax malabaricum	0 2 0
Ailanthus malabarica	0 2 0
Anthocephalus eadamba	0 1 0
Hymenodictyon excelsum	0 1 0
Gmelina arborea	0 4 0
Myristica malabarica	0 2 0
Trewia nudiflora	0 2 0

Suitable for Boxes, not suitable for Splints.

Canarium strictum	0 2 0
Semicarpus auriculata	0 1 0
Elaeocarpus oblongus	0 2 0
Cinnamomum Zeyanicum	0 1 0
Milium velutina	0 2 0
Ficus Beddomei	0 1 0
Ficus Benjamina	0 1 0
Ficus Glomerata	0 1 0
Ficus religiosa	0 1 0
Ficus Tjakela	0 1 0
Ficus collona	0 1 0
Ficus hispida	0 1 0
Diospyros Paniculata	0 1 0

Species.	Seigniorage rates per cubic foot.
	Rs. A. P.
Nephelium longana	0 1 0
Tetrameles nudiflora	0 2 0
Eugenia hemispherica	0 1 0
Flacourtia Cataphraeta	0 1 0
Aporosa acuminata	0 1 0
Callophyllum Wightianum	0 4 0
Pithecolobium bigeminum	0 1 0
Humboldtia Vahliana	0 1 0
Sterculia urens	0 2 0
Sterculia villosa	0 2 0
Mallohis Philippinensis	0 1 0

Suitable for splints, not suitable for boxes.

Odina Wodier	0 2 0
Spendias Mangifera	0 1 0

Signed Sealed and Delivered by the
abovesaid T. Raghaviah, Esq., Dewan
of Travancore, acting for and on behalf
of the Government of His Highness the
Maharaja of Travancore in the pre-
sence of—

(Sd.) T. RAGHAVIAH.

- (1)
(2)

Signed Sealed and Delivered by the
abovesaid The South Indian Match
Factory, Limited, by its duly consti-
tuted Attorney, V. Desikachari, Esq.,
in the presence of—

(Sd.) V. DESIKACHARI.

- (1)
(2)

True copy.

(Sd.) Illegible.

*Managing Director,
The S. I. Match Factory Ltd.*

CONCESSION AGREEMENT WITH TRAVANCORE GOVERNMENT.

ARTICLES OF AGREEMENT entered into this 21st day of December One Thousand nine hundred and twelve BETWEEN THE SOUTH INDIAN MATCH FACTORY LIMITED, a company incorporated under the Indian Companies Act VI of 1882 and having its Registered Office at No. 11, Mount Road, Madras (hereafter referred to as "the Company") of the one part and DEWAN BAHADUR P. RAJAGOPALACHARI, ESQ., M.A., B.L.

C.I.E., DEWAN OF TRAVANCORE, acting for and on behalf of the Government of His Highness The Maharaja of Travancore (hereinafter referred to as the Government) of the other part; WHEREAS under date the 29th day of August 1912 a memorial was presented to the Government by the Directors of the Company for certain concessions such as would enable the Company to start and work up a Match Factory in the State of Travancore AND WHEREAS after full consideration of the concessions sought to be obtained by the Company Government was pleased to agree to the terms and to grant the concessions specified in the Government proceedings No. 10508-L. R. & F., dated the 2nd day of October 1912 AND WHEREAS on further and subsequent representations made to the Government on behalf of the Company on or before the 2nd of December 1912. Government was also pleased to alter, modify and supplement some of the terms and concessions specified in the said immediately hereinbefore recited Government Proceedings AND WHEREAS demand was made of the Company by the Government to enter into a formal agreement with Government specifying the terms covenants conditions and provisions subject to which the industry was to be started and worked up by the Company which demand was assented to by the Company. It is hereby mutually agreed to that the Company shall have the rights liberties and privileges and be also subject to the liabilities herein recited and hereinafter appearing.

(1) That the Government doth hereby agree to grant to the Company an area of 25 (Twenty-five) British statute acres of land at such spot in the Yerur Reserve as may hereafter be mutually agreed to by the Company and the Government for the erection of their factory, cooly lines, outhouses for the stockage of raw materials, fuel and other requisite goods and things and buildings for residential and other purposes as may be required by the Company.

(2) That the Government doth hereby agree to deliver possession of the lands specified in clause (1) One hereof as and Where the same is required by the Company for the purpose of starting their building and other operations on the said land within three years from the date of these presents.

(3) That should at any time after the date of these presents it is found necessary that more land is required by the Company for the purposes of the Company. The Government doth hereby covenant and agree to grant also such additional land in the vicinity as may be required provided that Government land is available for the purpose and also that in no event Government shall be under liability to grant land in all exceeding (50) Fifty British statute acres in area inclusive of the first grant.

(4) That the Government doth hereby agree to grant to the Company the land hereby agreed to be granted free of payment of vilayartham or price thereof and also free of any assessment or tax for a period of twenty (20) years calculated as and from the date on which possession of such lands is delivered to the Company.

(5) That should at any time after the date of these presents the Company desire to acquire full right of ownership over the whole or any portion of the lands that may under the provisions in that behalf contained in these presents be granted to the Company the Government doth hereby agree to grant such full ownership to the Company subject to payment of acreage value at the rate of British Rupees (50) Fifty per acre and also subject to payment of assessment or tax at the rate of British Rupees (2) Two per acre per annum as and from the date of grant of such full ownership provided that the said assessment of tax shall be liable to revision at the Periodical Revenue settlement of the other lands in the State.

(6) That the Government doth hereby agree to supply the Company with such quantity of timber as may be *bona fide* required by the Company for the buildings specified in Clause (1) hereof and which they may cause to be erected on the lands granted to the Company and under or by virtue of these presents and deliver the same to the Company at the site of their works. Provided that Government shall on no account be under liability to

supply teak timber and provided also that Government shall be under obligation to supply only jungle wood timber and provided further that the supply and delivery need to be made only on a payment to Government by the Company of the actual felling charges of the requisite quantity of timber and the transport charges thereof for delivery at the sight of works of the Company.

(7) That the Government doth hereby agree to supply and deliver to the Company at the Company's factory soft wood of such species which are at present recognised or which may be hereafter be tested and found as suitable for the purpose of manufacturing splints, match-boxes and packing cases and of such quantity as may be indented for by the Company for a period of Twelve Years, from the date of the first supply indebted for by the Company at the maximum rate of (3,60,000) Three hundred and sixty thousand cubic feet of wood for the first (3) three years (10,80,000) One million and eighty thousand cubic feet for the next five years and (8,64,000) eight hundred and sixty-four thousand cubic feet for the remaining four years exclusive of the bark the delivery being fairly evenly spread over each of the year during the said twelve years provided that the Company shall be under obligation to accept delivery of the wood required for the months of March, April and May in each year between the fifteenth day of January and the fifteenth day of February of each year immediately preceding and provided that the Company shall be under liability to accept only sound and suitable wood which are 28 inches or multiples of 28 inches in length and of a girth of not less than 3 feet and not more than 9 feet.

(8) That should at any time the Company be desirous of arranging for its own supply of soft wood referred to in clause 7 hereof the Government doth hereby agree to permit them to do so by felling and removing such wood from the nearest vicinity of their factory provided that the Company shall be exempt from payment of any charges to Government in respect of the quantity of wood required during the first three years from the commencement of their works and referred to in clause 7 hereof and that thereafter the Company shall be under liability to pay to Government seigniorage at the rate of (3) three pies per cubic foot of soft wood removed from the Government forests and provided also that in the event of the Company preferring to work down the soft wood needed by their own agency such agency shall be under liability to carry on work under the general control of the Forest Department of the Government and on lines laid down by the department so as to obviate all possible risk of injury to the forests.

(9) That the Government doth hereby agree to supply and deliver to the Company stocked at their premises for a period of twelve years from the due date of the first supply indented for by the Company such quantity of timber as may be required for fuel for use in the factory and for the domestic consumption of the Company's employees, agents, workmen and servants residing at or near the Company's premises.

(10) That should of any time the Company be desirous of arranging for its own supply of fuel referred to in clause (9) hereof the Government doth hereby agree to permit them to do so by felling and removing the requisite quantity of timber required for fuel from the nearest vicinity of their factory, provided that the Company shall be exempt from payment of any charges to Government in respect of the quantity of timber felled and removed from the Government forests for fuel purposes during the first three years from the commencement of their working and that thereafter the Company shall be under liability to pay to the Government seigniorage at the rate of annas four per ton of eighty cubic feet of timber so felled and removed and provided also that in the event of the Company arranging for its own supply of the quantity of timber required for fuel purposes by their own agency such agency shall be under liability to carry work under the general control of the forest department of the Government and on lines laid down by that department so as to obviate all possible risk of injury to the forests.

(11) That the Government doth hereby agree to allow the right of free user by the Company of the water of the Kolathpuzhai river for their purposes and requirements except that of generating motive power and the free user of the said river bed for the purpose of keeping under water storage the timber that may be required by them to be so kept.

(12) That the Government doth hereby covenant and agree with the Company not to impose any duty whatsoever on the matches that may be manufactured, sold, or exported by the Company.

(13) That the Government doth also hereby covenant and agree with the Company to arrange for the grant of supplies bills free of any charge whatsoever at the Treasury of the Government at Poonalur on the Bank of Madras, Madras and *vice versa* in respect of *bona fide* remittances of sums of money by the Company in the connection with its work.

(14) That the Company doth hereby covenant and agree with the Government that so long as they have not acquired full right of ownership as recited in clause 5 hereof over the lands that may be granted to them by Government under or by virtue of these presents the Company shall not alienate or cause to be alienated the whole or any portion of portions of such lands.

(15) That the Company doth hereby covenant and agree with the Government to pay to the Government for the soft wood that may be supplied to the Company by the Government as recited in clause (7) hereof at the rate of three annas and six pies per cubic foot of wood supplied during the first three years thereafter for the next five years at the rate of four annas and six pies per cubic foot of wood supplied and for the remaining four years at the rate of 5 annas per cubic foot of wood supplied.

(16) That the Company doth hereby covenant and agree with the Government to pay to the Government for the fuel timber that may be supplied to the Company by the Government as recited in clause (9) hereof during the first three years at the rate of (3) Three British Rupees and eight annas per ton of eighty cubic feet of timber supplied thereafter for the next five years at the rate of (4) Four British Rupees per ton of timber supplied and for the remaining four years at the rate of four British Rupees and eight annas per ton of timber supplied.

IN WITNESS WHEREOF the parties of these presents have executed the same the day and the year first above mentioned.

Signed sealed and delivered by the above-named the South Indian Match Factory Limited by their duly constituted Attorney V. Desikachari, Esq., B.A. and B.L., acting under the Deed Roll of Power-of-Attorney, dated the sixteenth day of December One Thousand and nine hundred and twelve in the presence of—

(Sd.) V. DESIKACHARI.

Signed and sealed and delivered by the said Dewan Bahadur P. Rajagopalachari, Esq., M.A. and B.L., C.I.E., Acting for and on behalf of the Government of His Highness the Maharaja of Travancore in the presence of—

(Sd.) P. RAJAGOPALACHARI.

The Standard Match Factory, Sattur, Madras Presidency.

Letter dated 30th March 1927.

We are in receipt of your letter dated 7th March 1927 and the question-nair regarding match industry. We beg to submit the following information:—

Introductory.—The firm which we represent was established on the month of September 1925 and it is an unregistered firm and the capital invested is Rs. 6,000 and the total number of directors are two and it is a purely Indian firm of twenty shareholders. We made contract with the factories which solely manufacture splints and veneers and finish the work by hand operation. There are 25 paid servants in our factory and our average out-turn is 40 to 45 grosses of $\frac{3}{4}$ sizes daily (diameter $2'' \times 1\frac{1}{2}'' \times \frac{3}{4}''$), each box containing 72 splints.

Our factory is situated in the town of Sattur and consider it of a suitable one because of abundant labour supply. We consider that match factories in India are to be done in two departments: (1) Manufacturing of raw materials, (2) Finishing the products. The former is to be situated in forests where suitable woods abound and the latter in towns where they may have abundance of cheap labour and good market.

We agree that Indian made matches are partly inferior to the imported matches with respect of best woods not being available. In other respects we are almost equivalent.

Wood.—The woods hitherto used are good for boxes and packing cases and for splints they earn a prejudicial name compared with imported matches as of its easy breaking. So we think it necessary to import splints from foreign places such as Japan. The woods used for manufacturing our boxes are Bombax Malabarica (called in Tamil) and Shenthanaku and pala. As for other details we are not in a position to answer them as we do not manufacture splints and veneers and purchase from others.

Other raw materials:—

Market price.			Quantity reqd, per 100 Gross.	
Rs.	A.	P.		
1.	0	4	0	1. 30 lbs. Potassium chlorate.
2.	0	5	0	2. 4 " Do, dichromate.
3.	0	4	0	3. 4 " Sulphur.
4.	0	3	0	4. 7 " Manganese dioxide.
5.	3	0	0	5. 1 " Rodamine.
6.	2	8	0	6. 3 " Phosphorus.
7.	0	12	0	7. 3 " Sulphide of Antimony.
8.	0	5	0	8. 2 " Zinc, white.
9.	0	5	0	9. 3 " Umber.
10.	0	3	0	10. 8 " Ferric oxide.

Almost all kinds of chemicals are imported from Germany and none of these are likely to be manufactured here in India.

Labour.—As we manufacture matches only by hand operations there is no necessity of the employment of skilled labour imported from abroad and they are satisfactory.

Power.—No power is used.

Market.—Though our average daily output is 40 to 45 gross against the local demand for 25 gross our share is only 15 per cent. in the local demand and we market the remaining 85 per cent. in the mofussils.

Competition.—The keenest competitors are Swedish and Japanese, and they both compete with Indian matches manufactured from indigenous wood and with matches manufactured from imported goods.

It is understood from the reliable sources that foreigners have installed large factories in India with an addition of few Indians to be exempted from the excise that, they have established the factories in India to suppress the Indian industry in the initial stage and to monopolize the market. They manufacture the matches with the ideal machines of their own country, with the expert labour, efficient machines, pure and cheap raw-materials and investing large capitals. So their cost of production becomes very low and they have ample scope to monopolize the market.

This too has been experienced by us in past three months and prices have fallen down from Rs. 2-4-0 per gross to Rs. 1-12-0 per gross.

Equipment.—Three-fourths of our capital is invested in machinery, i.e., hand frames, racks, dipping trays, emptying machines, grinding mills, and other requirements, and we consider absolutely necessary to install machines for pasting, frame filling, manufacture of splints and all the departments to compete with foreign goods.

Claim for protection.—As our cost of production comes to Rs. 1-6-0 per gross of $\frac{3}{4}$ size and the market price is Rs. 1-8-0 per gross the profit realised is not decent for cottage industries as it covers the bad debts during the year.

Any reduction of the import duty, i.e., Rs. 1-8-0 per gross, will surely affect our trade and sometimes it is hoped that it will put an end to this cottage industry even if the reduction be 4 annas per gross when the market will be reduced to Rs. 1-4-0 which is below our cost of production. Reducing the duty, considering the only informations given by such concerns, will only protect such concerns from foreign competition and the fate of the small factories which really gives employment to the poor will be miserable. So the small factory should be protected both from foreign as well as Indian (factories conducted by foreigners equipped with foreign machines) competition. Further these large factories of India have twofold advantages: (1) The low cost of production, (2) Their higher rate of sale owing to the neat execution of the machines. So competition with such factories is not to be dreamed of. Even now as the price of the market is decreasing many small factories have vanished.

Therefore we suggest to protect these cottage industries from foreigners and the existing rate of import duties, i.e., Rs. 1-8-0, should be declared as protective duty and to levy tax to all factories Indian or mixed turning out more than 100 gross per day.

Such excise should be fixed at a figure calculated equal to the difference between the cost of productions of the large and small factories *plus* 2 annas per gross, i.e., the difference of price in the market. By adopting this sympathetic scheme, further recouping the deficiency in import duty and also increase the number of small factories all over India and thereby solve the problem of unemployment to a considerable extent. Then the match Industry will have the substantial footing.

Therefore we kindly request you to be good enough to grant full protection for match industry.

**The Malshar Match Manufacturing Company, Limited., Cochin,
Madras Presidency.**

Letter, dated 5th April 1927.

In response to the request contained in your circular letter No. 209, dated 7th ultimo, from Rangoon, we enclose herewith our answers to the Tariff Board's questionnaire with six spare copies as required. It has not been found

possible to get them to Calcutta by the 4th April, but we hope that the short delay that has taken place will not result in any inconvenience.

It must be explained that the answers which this Company gives must necessarily be of doubtful value. The original idea of the Company was to manufacture matches out of Eota, but it has proved unsuitable as a raw material for match manufacture, and we are now reconstructing with a view to making matches out of timber. We have already given you information in this connection in our letters of the 29th October and 16th December 1926.

INTRODUCTORY.

1. 1923. Public Registered Company.
2. 1,431 shares of Rs. 10 each are held by Indians, i.e., nearly $\frac{1}{4}$ th of the capital.
- 5 Directors of which one is an Indian and the others Europeans.
One European employed as Factory Manager.
3. Whole process of manufacture.
4. Commenced in February 1926, but work stopped in June 1926, the raw material (Eota) used being found unsuitable.
5. 1,000 gross per diem.
6. $1\frac{1}{2}'' \times 1\frac{1}{8}'' \times \frac{1}{8}''$ —63.
- 7.
8. At Fudichal in the Travancore State.

(a) Yes.

(b) Yes.

(c) Yes.

(d) Yes.

Close proximity to a constant and lasting source of supply of suitable timber procurable at low cost.

9. (a) Yes. The principal respects in which Indian Matches fall short of imported (Swedish) Matches are:—

(i) Splints.

Faults of Timber.

(a) Strength.

(b) Colour.

(c) Paraffining (on account of low absorbing powers of timber).

Faults of Manufacture.

(a) Uniformity.

(b) Impregnation.

(c) Paraffining.

(ii) Boxes—

Faults of Timber.

(a) Colour.

(b) Texture.

(iii) General Appearance.

(b) No.

(c) 12 annas to Re. 1.

RAW MATERIALS.

Wood.

10. (a) No.

(b) No.

(c) No.	Botanical name.	Vernacular name.
11.	(a) Bombax Malabarica.	Elavu.
	(b) Bombax Malabarica.	Elavu.
	(c) Tetrameles Nudiflora.	Cheeni.

12. No experience.
 13. (a) Factory not working.
 (b) 6,000 candies of 15 cubic feet.
 14. 2 candies of 15 cubic feet.
 15. Length 39"; Breadth 22"; Height 23".
 Say, 1½ cubic feet.

50 gross.

16. Malayattur Reserve.

Travancore Forests.

40 miles.

17. Manual labour and Elephants.

Road and river.

18. Unsettled.

19. No experience so far.

20. Unsettled.

21. No experience.

22. No experience.

23. Does not arise.

24. Yes.

Negotiations with Travancore Durbar for concessions over a period of years.

No steps have yet been taken to plant timber, but it is intended to do so.

25. No.

Other raw materials.

26—29. No other raw materials used.

Labour.

30. No difficulty anticipated.

31. Not at all.

32. Does not arise.

33. Rely on Indian labour.

34. Estimate 150—200 including boys.

Machinemen, Mechanics, etc.. Re. 1-8 per day.

Ordinary men coolies, 12 annas per day.

Ordinary boy coolies, 4 annas per day.

Ordinary women coolies, 6 annas per day.

35. Vicinity of the Factory.

36. Insufficient experience in match manufacture, but it has been found in her connections that labour does improve with training. An intelligent young man of the working classes with some vernacular education becomes a fairly efficient machine operator in about three months.

37. Clerical staff and foremen housed on the premises in very good pukka quarters.

Cooly labour live in own houses.

Power.

- 38. Steam.
- 39.
- 40. Wood, yes.
- 41. 2 tons per 1,000 gross in addition to waste timber.
- 42. Rs. 5 per ton delivered factory.
- 43. No.

Market.

- 44. No experience.
- 45. Yes, the smoking habit amongst the working classes of Malabar increasing.
- 46—48. No experience.

Competition.

- 49. Sweden and Japan.
- 50. Both as far as Swedish matches are concerned on account of superiority of product. Japanese matches usually compete with matches manufactured from indigenous woods.
- 51. Unable to give information—no experience.
- 52.
- 53. (a) No.
- (b) Yes, comparatively.
- (c) Yes.
- 54. (a) Yes.
- (b) Yes.
- (c) Yes.
- (d) Yes.
- (e) Yes.
- (f) No.
- (g) Yes.
- (h) Yes.
- (i) Yes.
- 55. (c) Temporary—until ordinary labour becomes skilled.
- (d) Temporary—until planted timber becomes available in, say, 12—15 years
- (e) So long as import duties on chemicals and paper remain at present levels otherwise not important.

Equipment.

- 56. Yes—500 gross per diem.
- 57. 30 per cent.
- 58. A description of our present machinery would be worthless as it has been proved unsuitable.
- 59. (a) It is hoped it will be.
- (b) No useful data available.
- 60.
- 61.

Capital Account.

- 62. As the Company is reconstructing, details would be of no value.
- 63.

64.
65.
66.
67. (a) Rs. 10,00,000.
(b) Rs. 10,00,000.
(c) Rs. 7,40,125.
All Ordinary.
68.
69.
70. No dividends.
71. No dividends.
72. Nil.
73. Nil.
74. Nil.

Works cost.

75. As the Company has not worked for full year, figures would be worthless.
76.
77. Same as Answer 75.
78. No.

Overhead charges.

- 79 and 80. No depreciation written off.
81. Rs. 50,000.
82. Yes.
83.
84.
85.
86. No, on account of easily available supplies.

(iii) Agents' Commission and Head Office expenses.

87. Yes.
88. (i) No useful information available.
(ii) 2 per cent. on gross sale price of Company's matches.
89.
90.

Manufacturers' Profits.

91. 25 per cent. on account of extremely speculative nature of investment.
92. (a) $7\frac{1}{2}$ per cent.
(b) $7\frac{1}{2}$ per cent.
93. 20 per cent.
94. Yes.
(a) Yes.
(b) Yes.
(c) Yes.
(b) Yes.
95. (a) Yes.

96. The abundant supply of timber and the need of finding use for it to assist extraction of more valuable timbers and to develop systematic working of forests including planting of timbers.

The need of finding employment for labour.

The training of the Indian working classes in the use of machinery, thus enabling them to participate in industrial life generally under good factory conditions.

97. (a) Re. 1.8 per gross.

(b) No figures available.

98. The same as at present or greater in view of the progress already made all over India. If the Protective Duty were reduced or abolished, the industry which has been fostered by the imposition of duty would be ruined.

99. No.

The Madras Swadesh Match Works, Madras.

Replies to questionnaire.

1. (a) In the latter part of the year 1923.

(b) Private concern.

2. Invested Capital Rs. 20,000. Indian owned. All the employees are Indians.

3. Splints and veneers are prepared in one place with a partner and the finishings are done in another place. All by our own.

4. Commenced in the year 1923.

5. Average output finishing is 40 gross daily.

6. $\frac{3}{4}$ and full sizes are manufactured. Contents in each box will be about 70 to 80 splints.

7. The average output for the years:—

	Gross.
1924	5,000
1925	7,000
1926	10,000

8. 143 Tiruvatiyore High Road, Washermanpet, Madras, and at Palghat.

(a) Somewhat convenient.

(b) Somewhat convenient.

(c) Best Market.

(d) Labourers can be got somewhat easily from the nearer places.

In selecting the site in spite of the above said conveniences the following are also essential:—

It should be near to the forest where the wood is supplied. It should also be nearer to the Railway station.

9. (a) Yes. Mainly in respect of splints and veneers which are made of native wood.

(b) No such bad remarks are being made by the public as regards our matches are concerned.

(c) People will buy the native article at a less price, i.e., if they pay 3 pies for a box of imported matches they pay only 2 pies for the native one.

10. As far as our business is concerned it is not necessary to import wood for the purpose.

11. We generally use Bombax Malabarigam, Palai and Amathali.

12. No. In strength and also in the percentage of wastages in native wood.

13. About 200 to 250 tons per annum.
14. It is impossible to give a definite idea of the quantity required since much wastage takes place specially in this wood.
15. The goods are sold in loose. If necessary cases are purchased here locally. The contents will come to 50 to 60 gross as per size of the case.
16. Supply of wood comes from Davastanam Forest within 10 miles from our factory.
17. The trees are cut down for this purpose only. Plants will grow of their own accord.
18. Charges paid for the same is Rs. 3 to Rs. 4 per candy.
19. The cost of 50 c.ft. comes to Rs. 15 to Rs. 20 delivery at godown.
20. No concession allowed for the same. Have got private licence. The road is not good. If it were so there will be no difficulty.
21. Woods which are cut from sandy places are good and white; and woods which are cut down from hilly places are not so.
22. Sometimes scarcity of wood is felt for number of days together.
23. Almost the same, i.e., Rs. 15 to Rs. 20 per c.ft. delivery at our godown.
24. They grow of their own accord.
25. We are getting the same in carts.
26. The following raw materials are used besides wood :—
 - (1) Red Phosphorus, (2) Oxide of Zinc, (3) Gum (Glue and Gellatine), (4) Paraffin, (5) Chlorate of Potash, (6) Bichromate of Potash, (7) Manganese Dioxide, (8) Sulphur, (9) Glass powder, (10) Lamp black, (11) Black Sulphide of Antimony, (12) Ferric oxide, (13) Paper for wrapping, (14) Paper for packing.

27.

	Lbs,
No. 1	4
No. 2	2
No. 3	5
No. 4	22
No. 5	35
No. 6	4
No. 7	10
No. 8	5
No. 9	12
No. 10	1
No. 11	3
No. 12	2
No. 13	6
No. 14	2

28. We buy from Calcutta market.

(b) 1	Rs. 20 per cwt.
2	Rs. 99 " "
3	As. 8 " "
4	As. 5 " "
5	Rs. 30 " "
6	Rs. 60 " "
7	Rs. 18 " "
8	Rs. 15 " "
9	Rs. 10 " "

10	. . . . .	Rs. 100 per cwt.
11	. . . . .	Rs. 70 " "
12	. . . . .	Rs. 18 " "
13	. . . . .	As. 8 " "
14	. . . . .	As. 10 " "

29. We do not know
30. No.
31. We can hardly afford to pay for foreign labour.
32. No.
33. We have given quarters to some important persons.
34. 100 persons; 60 are children and female.
35. Within 4 miles.
36. If properly trained Indian labour will become efficient.
37. The labourers make their own housing arrangements.
38. Steam power is used for making materials only.
39. No electric power is used. We do not know.
40. Fuel and wastage of woods are used.
41. We are unable to calculate this.
42. Fuel will be purchased locally according to the fluctuation of the market.
43. We are buying fuel since the wastage of wood is insufficient.
44. We do not know.
- 45.
46. Locally as well as in Southern parts.
47. Practically no.
48. All our goods are sold at a lesser price.
49. Sweden.
50. No information available.
- 51.
52. We do not know.
53. This is a question of trade secret it seems.
54. (a) Yes.
- (b) Yes.
- (c) Our labour is very dear.
- (d) Yes.
- (e) Same disadvantage as machinery.
- (f) Yes.
- (g) Want of sufficient capital.
- (h) Yes.
- (i) Our greatest difficulty.
55. (a) Till we manufacture in India.
- (b) People are trained in the line.
- (c)
- (d) Till we get concessions in railways, etc.
- (e)
- (f) People are trained in the line.
- (g) This can be improved if proper steps taken.
- (h) It is a matter belonging to the Government.
- (i) This can be improved if proper steps taken.
- (j)

56. Ours is not so big.
57. 20,000.
58. Splints peeling machine, Chopping machine, Box peeling machine, Scoring machine, Cutting apparatus, Frame filling machine, Emptying machine, levelling machine, frames and carriers, etc.
- (a) All Japan and German make. All were being used from 1925.
- (b) All in cash.
59. No. We cannot if the present duty is not maintained and an excise at least annas 8 be not imposed on the products of factories in India financed by foreign capital.
- (b) All the above machines are used.
60. In case if proper protection be got, we have a great desire to extend the line to some extent.
61. Nothing.
- 62 and 63.
64. We have not allotted any sum for depreciation.
65. We work with our own capital. (For 65 plant and machinery, etc., cost more owing to a rise in the imported one.)
- 66 to 74.
75. Enclosed herewith.
- 76 and 77. We are not adopting the same.
78. Unable to answer.
79. Facts not available.
80. No depreciation amount allotted.
81. Rs. 5,000.
- 82 and 83. We are to buy on some occasions by 12 per cent. interest.
84. More than $\frac{1}{2}$ the amount.
85. No stock will be stocked; all will be sold then and there.
- (b) One month after delivery.
- 86 to 89. Have got agents. Their return commission is 2 per cent.
- 90 to 93. Our concern is a private one.
94. (a), (b) and (c) Yes.
95. Yes.
96. Many are unemployed in several districts who are educated even and who are satisfied with small earnings and who are living very cheap. The agriculturists also can work in an industry very cheaply.
97. (a) Re. 1-8 per gross on finished matches and Rs. 4-6 on 1 lb. of splints and 6 annas on 1 lb. of veneers of boss.
- (b) We do not know.
98. The retention of the existing duty on matches.
99. An excise at the rate of at least 8 annas per gross on the goods of factories in India financed by foreign capital.
- Facilities should be given to us by the Railway Companies, Steamship Companies, in all possible ways.

Mahalakshmi Match Factory, Shahdara, Punjab.

Letter dated the 4th April 1927.

With reference to your letter No. 209, dated the 7th March 1927, we are
 aherewith forwarding our replies to the questionnaire on the Match Industry.

Answers to questionnaires.

INTRODUCTORY.

1. Our match factory started working in March 1925. It is a private un-registered concern.
2. The concern is entirely Indian and is owned by Sir Daya Kishna Kaul Sons & Co. There is only one European employee, *viz.*, the Engineer.
3. The factory covers the whole process of manufacture from making splints and veneers to finishing of match boxes.
4. On the 11th March 1925.
5. 1,000 gross a day of finished match boxes.
6. The dimensions of our match boxes are:—

Length	53 m.m.
Breadth	37½ „
Height	17 „

and the size is the standard $\frac{3}{4}$ size. The average number of matches in each box is 60 (sixty).

We have only worked for two years and our output has been:—

In 1925-26	1,00,405 gross.
In 1926-27	1,80,478 „
Total for 1925-27	2,80,883 „

8. Our factory is situated at Shahdara (N. W. Railway) at a distance of 5 miles from Lahore.

(a) As regards vicinity to principal raw materials, it is centrally well situated, can draw timber from three important timber depôts and is itself located on the Ravi River. Under the present conditions it is the most suitable site in our opinion, but as exploitation of forests develops, it may be possible to go nearer the sources of timber supply.

(b) We are at a disadvantage as regards coal for steam purposes, but in our boiler we use about 25 per cent. coal and 75 per cent. of our own wood refuse. Crude oil is obtained at economic rates and electricity should soon be available at cheap rates.

(c) The factory is placed in the centre of the Punjab which is a large enough market. Shahdara adjoins Lahore which is the most important commercial centre in the Punjab. Moreover Amritsar, Gujranwala, Lvallpur, Ferozepur and Jullundur, all important centres in the Punjab, are within a radius of 40 to 100 miles from Shahdara.

(d) Labour supply is abundant and can be secured locally. From all point of view we consider Shahdara a suitable place for the Factory.

The most important factors in selecting a site are:—

- (1) Suitability as regards the economic supply of suitable timber.
- (2) Facilities for distribution of the manufactured product in the area which forms the market.

9. (a) Splints manufactured by us from wood, at present obtained are slightly darker than those of Swedish import, otherwise the general finish of our matches is claimed to be as good as that of the imported Swedish matches.

(b) Yes. There appears to be some prejudice on the score of colour against Indian matches in particular markets and with certain classes of buyers.

(c) The Swedish matches are selling at 6 pies and 4½ pies a box while we place our matches on the market at 3 pies a box. This we think represents

a fair measurement of the difference due to colour and should be sufficient to overcome the prejudice against Indian matches.

10. No.

11.

Botanical names of wood.

Blue Pine	Pinus excelsa.
Simul	Bombax Malabaricum.
Provincial Poplar	Populus Cuphratica.
Silver Fir	Abies Webbiana.
Spruce	Picea Morinda.
Mango	Magnifera Indica.

We do not wish to state which wood we use for each purpose.

12. We have found Indian wood quite satisfactory for all three purposes. The only difference is in the colour of splints.

13. Our annual requirements of wood are:—

1. Present rate of output 800 gross daily.

	c.ft.
(a) Matchwood 285×300	85,500
(b) For packing cases	13,200
	TOTAL 98,700

2. Full capacity 1,000 gross daily.

(a) Matchwood 360×300	1,08,000
(b) For packing cases	16,500
	TOTAL 1,24,500

14. It is difficult to answer this question until proper experiment is made with suitable wood delivered under suitable conditions, as the condition of wood makes very great difference in the outturn of finished matches from it. Our results, however, with wood purchased in different conditions, generally unfavourable in the open market, give 35·7 c.ft. to 100 gross of boxes of finished matches.

15. Measurements of the packing case are on the inner side 33"×21"×24". One packing case requires 1·9 c.ft. sawn planks and 2·75 c.ft. in logs. Each case takes 50 gross of match boxes.

16. Wood is available at

Distance from Factory.

1. Shahdara on the Ravi	1 mile.
2. Dhilwan, N. W. Railway	66 miles.
3. Jhelum, N. W. Railway	98 miles.
4. Ghazighat, N. W. Railway	235 miles.
5. Wazirabad, N. W. Railway	58 miles.
6. Areas in United Provinces	300 miles appr.

A rough sketch is enclosed as desired, Appendix 2.*

17. We have been buying timber from the forest sales depôts which are on the various rivers of the Punjab on railway lines.

18. We have so far been purchasing in the open market.

19. We have not so far obtained any wood on royalty basis at all.

* Not printed.

20. We hold no concession so far, and the position therefore is very unfavourable. What is required is for the Forest Department to try and work down match timber from their forests by special arrangement and at an economic cost.

21. The supply of wood has not been constant in respect of quality. The class of wood being the same, exposure to water and heat make very great difference in its economic value for match manufacture. Wood, which is exposed to heat and is cracked or such as has had knots, automatically depreciates in its utility for manufacture. As far as the supply from the forests is concerned, wood suitable for matches has not so far been exploited exclusively for match manufacture.

22. The supply of wood has not been constant in respect of quantity. We have to purchase it as it becomes available. Sometimes when suitable wood is not available from Forest Depôts at economic rates we have to purchase in the open market far or near. So long as a sufficient supply keeps coming in from the forests, there is no roof for shortage. The Forest outturn is not affected by our requirements.

23. Such contingency has not arisen so far.

24. Yes. But the same quantity could be brought down at much cheaper cost. Steps are being taken by the Forest Department to experiment with plantation of suitable matchwood in their plantation areas.

25. No such concession is at present received and this is a great disadvantage for purposes of competition with imported matches. Concession freight for matchwood prevail on other Railways, but none are allowed yet by the North Western Railway.

26. The raw materials other than wood are given below with annual requirements.

1. Paper	1,35,000 lbs. per annum.
2. Chemicals	1,36,000 lbs. per annum.
3. Glues and gums, etc.	14,000 lbs. per annum.
27. Paper	45 lbs.
Chemicals, etc.	50 lbs.

28. All the above materials are at present imported from abroad.

Statement of imported articles with particulars required is attached as Appendix 1. We beg that the information may be treated as confidential and not printed or published.

29. (a) Paper	All kinds.
Chemicals	All except Sulphur.
Glue, etc.	All kinds.

(b) There seems to be no insuperable difficulty in the manufacture of the paper required. We have not studied the manufacture of chemicals and cannot say if any particular chemical will be difficult to manufacture.

Labour.

30. No.

31. It is only necessary to employ a skilled Engineer from outside the country till such time as technically trained man capable of supervising the working of the machinery become available in the country.

32. No imported labourers are employed.

33. Imported labour was never employed. Indian labour is trained in the factory and every facility is offered to new hands to learn work.

34. Average daily labour employed in 1925, 105 men, 43 boys.

Average daily labour employed in 1925, 116 men, 51 boys.

No women have been employed so far.

Average wages are:—

1. Men annas 12 to annas 13 per day.
2. Boys full timers over 15 years of age, Rs. 15 to Rs. 16-8 per mensem.
3. Boys half timers from 12 to 15 years of age, Rs. 8 to Rs. 9 per mensem.
35. Yes, from the vicinity of the factory.
36. We find that Indian labour improves with training. We have a record which shows the improvement.
37. Accommodation in paka quarters is provided for about 60 labourers, the remaining come from the neighbouring villages and from the city of Lahore. Those who live at the factory are properly looked after as regard health, sanitation and hygiene.

Power.

38. The power is derived from crude oil.
39. Electric power is not used.
40. Steam power is not used for driving the machines. Steam is used for drying purposes. The fuel employed for generating steam is coal and principally timber waste. The latter is available in more than sufficient quantities.
41. We have not so far been able to determine correctly the quantity of fuel required per unit of output.
- 42.

	Distance miles.	Price f.o.r. colliery.	Transport cost.	TOTAL.
Coal	1,025	Rs. 5-6-0 per ton.	Rs. 12-0-0	Rs. 17-8-0 per ton.
Crude oil . . . .		...	...	Rs. 120-0-0 per ton at Shahdara.

43. Waste wood meets a large part of the fuel requirements but not completely. We have no concession for fuel from Government.

Market.

44. Total Indian demand may be gauged from the figure of imports in 1921-22 which was 1,36,80,801 gross of match boxes. Allowing for local production which was comparatively small at that time the total annual demand may be put roughly at 1,50,00,000 gross.

45. Yes, the demand is likely to increase but only gradually.

Reasons:—

1. Increasing facilities of communication,
2. Effects of the spread of modern civilization, and
3. Increased substitution of cigarette and cigar smoking for the Hukka.
46. Our markets are the Punjab and adjacent States, North-West Frontier Province, Sind and Baluchistan. The factory is situated at Shahdara, North Western Railway (near Lahore) which is central for these areas.

47. The markets most favourably placed for us with regard to foreign competition are the Punjab and places north and west of it. The daily demand in this area is over 3,000 gross.

48. (a) In the area which constitutes the market for our matches, there is no market served exclusively by imported matches.

- (b) We have reason to believe that a certain amount of illicit importation of matches into British India does take place through some of the Indian State ports. But we are unable to adduce any proof of it.

Competition.

49. In the Indian markets competition is keenest from Swedish made matches and those made by the Swedish Combine in India marked (Wimco) as also from Japan made matches.

50. We venture to point out that the question should have been put the other way round. We think that a duty of Rs. 1-8 per gross on imported matches just enables the matches made from indigenous woods to compete with imported matches. Any reduction in such duty is bound to severely handicap the former.

As to matches manufactured from imported woods, they may be divided into two classes, *viz.*:-

- (1) Concern backed by foreign Capital, and
- (2) those run by Indian Capital.

Both the classes owe their existence to evasion of the import duty on matches by importing matchwood which is liable to a much lighter customs duty. The matches manufactured from indigenous woods have to compete not only with imported matches, but also with these two classes of local manufacture. Class 1 being financially much stronger, class 2 is bound to die a natural death. The competition with No. 1 is on the other hand more serious under present conditions than that with imported matches. It is only by taxing imported matchwood adequately besides maintaining the duty on imported matches and making the duty on imported splints and veneers proportionate thereto that the indigenous match manufacture can be enabled to develop to the present and ultimate benefit of the local consumer who gets the indigenous matches at the cheapest price.

51. We came into the field in 1925 and the following are the wholesale prices from that year onwards:—

The prices having varied from time to time, the minimum and maximum figures are given for each of the two years.

	1925-26.			1926-27.										
	Rs.	A.	P.	Rs.	A.	P.								
Size $\frac{1}{2}$ (i) Imported matches	2	7	6	to	2	11	0	2	6	0	to	2	9	0
Size $\frac{1}{2}$ (ii) our Indian wood matches	1	11	0	to	2	0	0	1	6	0	to	1	8	0
Size $\frac{1}{2}$ (iii) imported wood matches	1	12	0	to	2	0	0	1	2	6	to	1	7	0

The f.o.b. prices in sterling for imported matches are not available with us nor the c.i.f. prices.

52. It should be possible to obtain information relating to the prices at which imported matches enter India from wholesale dealers at port towns, from the Indian agents of foreign companies such as Forbes, Forbes Campbell & Co., and from the Customs authorities.

53. We have no information as regards the prices of foreign matches in their respective countries, but for the following reasons we believe that the prices at which foreign matches are sold in India must be unremunerative to the producers if they do not actually involve a loss. It is a well known fact that sale price of matches in Europe for similar quality and size is considerably higher than those which prevail in India. The reason is evident. The manufacturer of safety matches which at one time was Sweden's exclusive monopoly has of recent years sprung up in other countries as well. But most of the important factories in Europe now form part of a powerful combine in one form or another so as to preclude competition. This combine known as Swedish combine has to fight against Japanese manufactured matches and the attempts at indigenous manufacture. For this purpose the prices have naturally had to be cut down to a very low figure and a powerful combine like that can well afford to bear a small loss on the Indian sales which can

be recouped from the large profits which they derive from their world trade. It is evident that the manufacturers of foreign matches do not get more than Re. 1 per gross for their goods delivered in India after deducting Rs. 1-8 on account of the import duty. This figure is remarkably lower than what the foreign manufacturers got before the enhancement of the import duty. Allowing for freight charges, the net factory return on present sales must be much lower than Re. 1 per gross. Unless therefore the foreign manufacturers were making fabulous profits before the enhancement of the duty, the present return cannot be considered remunerative. In any case the profits, if any, must be merely nominal. On the contrary it stands to reason that the Swedish combine are adhering to their present sale prices, even at a loss, in order to kill indigenous enterprise and to oust Japanese production from the market.

Working with imported logs has provided a loop hole for them to make some small profits on the one hand and to under sell the matches manufactured from indigenous woods on the other, with a view to gain the ultimate and of securing a monopoly of India's trade in matches. We therefore consider that a careful enquiry into the actual working cost of foreign manufacturers is essential from the Indian standpoint, and that therefore attempts made by foreign manufacturers and foreign capital working in India with imported woods to strangle the growth of the Indian industry should be carefully safeguarded.

54. This question requires to be divided into two parts:—

1. The Indian manufacturer as compared with the foreign manufacturer making matches in India with foreign wood.
2. The Indian manufacturer as compared with the foreign manufacturer making matches outside India.

In Case No. 1 the conditions for both are more or less the same under (a), (b), (c), (d), (e), (f), (g), (h).

Under (i) Indian capital bears a higher rate of interest.

In case No. 2.

(a) The Indian manufacturer is at a distinct disadvantage.

(b) and (c) Both these are temporary disadvantages, and it is hoped that the Indian manufacturer will overcome these within a few years by steady work, and with the growth of match manufacture in the country.

(d) To the Indian manufacturer the collection and transport of raw materials is at present a great disadvantage owing to the high railway tariff and lack of interest on the part of forest owners (*viz.*, Government) in co-operating to develop the industry.

(e) *Cost of stores* involves a disadvantage to the Indian manufacturer which may last longer.

(f) We have no concession freight at present on the North Western Railway. On the contrary we understand that imported matches enjoy the concession of specially low freights for railway transport from sea-ports. We are therefore at a distinct disadvantage.

(g) The Indian manufacturer is at a disadvantage as spare parts are not manufactured in India. As for wood the foreign manufacturers have a better control over their own sources of wood supply, while in India it will take some time for the Indian manufacturer to regulate and control the supply of Indian match timbers.

(h) Customs duty on imported materials other than woods is a distinct disadvantage to the Indian manufacturer and a reduction compatible with the expected growth of the industry is a question which deserves the consideration of the Government of India.

(i) Capital in India is not difficult to raise, but the higher rate of interest prevailing at present in the country is a disadvantage.

55. It will be observed that case 1 of our answer to Question 54 does not require consideration. Our replies below therefore relate to case 2 dealt with in answer 54.

(a), (e) and a part of (g) relative to spare parts, are permanent disadvantages so long as machinery, spare parts, papers and chemicals are not manufactured in India. (b) and (c) are temporary disadvantages which should be overcome in another five years of steady growth. The disadvantage under (d) in respect of the collection and transport of raw materials should be considered temporary as this can be overcome with the help of Government and by employment of suitable device.

Regarding (f), i.e., freights on finished goods, we hope that with the help of Government this will only be temporary disadvantage to Indian manufacturers using Indian wood.

(h) It might be considered temporary, if Government wish to help and promote the industry.

(i) This is a serious and permanent disadvantage as the interest bearing power of capital in India is much higher and this is bound to continue so long as the fiscal condition of the country remains what it is at present.

Equipment.

56. Yes, our factory is. We consider 500 gross to be the smallest unit of economic production.

57. Our total cost of plant and machinery works to about 60 per cent. of the total capital outlay.

58. (a) We have a full set of machinery for complete process of manufacture of 1,000 gross daily, supplied by Germany, and the entire machinery has been in work since March 1925.

(b) Our machinery has been purchased in the ordinary course and with no special arrangement.

59. (a) Yes, our machinery and equipment are absolutely up to date and of the latest European type.

(b) All our processes are carried out by machinery.

60. Yes, if conditions of taxation and market admit.

61. No parts of the machinery used by us are at present made in India.

Capital Account.

62. The Block Capital value of our property on 31st March 1926, was:—

	Without depreciation.	After depreciation.
(a) Leases and concessions . . . . .	...	...
(b) Lands . . . . .	...	...
(c) Buildings	84,096	81,153
(d) Plant and machinery	1,49,581	1,34,623
(e) Other miscellaneous assets	8,131	7,282
	<hr/> 2,41,808	<hr/> 2,23,058

63. The figures with and without depreciation as made out by us have been given above. But the depreciation figures are under discussion with the income-tax authorities who are not prepared to allow more than the scheduled 6½ per cent. depreciation on match machinery, while we have charged 10 per cent.

64. In the case of match machinery, the depreciation put down by us is higher than that allowed by the income-tax authorities as we consider that a higher rate of depreciation is necessary in the preliminary stages owing to

considerable experimental work with difficult timber which effects the life of the machinery.

65. Our cost of erecting the factory to-day under the Head Buildings would be nearly the same for similar accommodation and of similar type.

The cost under plant and machinery would vary according to the prices which prevail at the time the order is placed. The prices had fallen last year, but the present quotations are again 12 to 24 per cent. higher than our cost.

The difference in operating cost would be small.

66. Our machinery was purchased in one batch in the years 1923-25, and the value has already been given above. The rate of exchange for our entire purchase was 1s. 4½d.

67. Our is a private concern.

68. The same as above.

69. The same as above.

70. The same as above.

71. The same as above.

72. The same as above.

73. No reserve fund is maintained separately, this being a private owned factory.

74. Funds for extension or replacement would be provided by the proprietors according to requirements.

Works costs.

75. Apart from the undesirability of disclosing the details of our works costs, it is very difficult to give definite figures as the price of materials required for the manufacture keep varying. But the average for the period during which our factory has worked comes to nearly Re. 1-6 per gross of match boxes.

76. The works costs for the past two years are perhaps higher than what they would have been if our factory had worked all throughout its full capacity.

77. No.

78. No.

OVERHEAD CHARGES.

(i) *Depreciation.*

79. The rates of depreciation allowed by the income-tax authorities are given below:—

Paka buildings	2½ to 5 per cent.
Boilers and engines	5 per cent.
Match machinery	6½ per cent.

There is not much dispute over items other than that for match machinery. The life of match machinery is estimated by Income-Tax Officers at 16 years. This we believe is too long a life for machinery which has to bear the brunt of experimental work with various Indian timbers.

Eventually as things settle down, and suitable timber in suitable condition is obtained, the wear and tear on the machines would be less. For the present we hold that in the initial stages, i.e., for 1st ten years at least 10 per cent. depreciation should be allowed on match machinery dealing with Indian timber.

80. At income-tax rates the depreciation on Block Capital would be approximately:—

	Rs.		Rs.
(a) Buildings	84,096	@ 3½ %	2,943
(b) Match machinery	1,20,640	@ 6½ %	7,540
(c) Other plant and machinery	28,941	@ 5 %	1,447
(d) Miscellaneous assets	8,131	@ 5 %	406
	2,41,808		12,336

(b) Since the machinery came into use only in 1925, there is not much difference in the amount required for depreciation in our case.

(ii) Working Capital.

81. The Working Capital required according to present output is Rs. 1,20,000 and according to full capacity Rs. 1,50,000.

82. Already answered under 74.

83. Money borrowed in the market carries generally from 8 per cent. to 10 per cent. interest.

84. Cannot answer for reasons given under 77.

85. At present we have no stock of finished goods, but at times we have on our hands two to three months finished production. The period between production and payment is one to two months.

86. We have to hold large stocks of raw material but not of coal. The value of stocks thus held ranges from Rs. 80,000 to Rs. 90,000.

(iii) Agents commission and Head Office expenses.

87, 88, 89 and 90. The questions apparently pertain to companies and therefore do not relate to us.

Manufacturers' profits.

91. In the case of a limited company we are inclined to think that at least 10 per cent. dividend would be a fair return.

92. Question do not apply to us.

93. Same as above.

Claim for protection.

94. We consider that the three conditions laid down in paragraph 97 of the Report of the Fiscal Commission for industries claiming protection are satisfied in the case of the match industry.

(A) We do claim that the industry possesses natural advantage such as an abundant supply of raw materials, cheap power, a sufficient supply of labour and a large home market.

(B) We do claim that without the help of protection the industry is not likely to develop at all or is not likely to develop so rapid as is desirable in the interests of the country.

(C) We do claim that the industry will eventually be able to face a fair world competition without protection.

We have explained our reasons fully in our joint representation dated the 30th December 1926, printed copies of which are attached for ready reference (*vide* pages 2 to 6). We also enclose the view of the Northern India Chamber of Commerce on the subject. Appendices 3 and 4.*

* Printed separately.

95. We claim that the match industry satisfies both of the conditions mentioned in paragraph 98 of the Fiscal Commission Report, viz.:—

- (a) That the industry is one in which the advantages of large scale production can be achieved, and that increasing output would mean increasing economy of production.
- (b) That we feel hopeful that if proper protection and encouragement are afforded, the entire need of the country could be supplied by home production in a few years.

96. Yes, the match industry is peculiarly suitable to Indian economic conditions as:—

- (a) it suits the Indian labour admirably as the work is of a light nature and the machinery is not too complicated to handle. The labour is moreover cheap and plentiful,
- (b) the country possesses large possibilities in the line of manufacture of paper and chemicals, and the match industry will stimulate these,
- (c) the country is very fertile, and many waste areas exist, which could be advantageously utilised for plantation of suitable matchwood,
- (d) the general poverty of India calls for fresh avenues of employment and wage earning, and
- (e) India has a distinct advantage over other countries manufacturing matches inasmuch as it can export more economically to countries which adjoin India and which are geographically placed at economically prohibitive distance from sea-ports.

97. (a) The existing customs duty is:—

Finished matches	Rs. 1-8-0 per gross.
Splints	Re. 0-4-6 per lb.
Veneers	Re. 0-6-0 per lb.

(b) We do not at present possess correct information regarding (b).

98. It is extremely difficult to gauge with accuracy the exact amount of protection that is necessary. The Indian industry is in a stage of transition, and experiment. The results hitherto have been encouraging, but the working conditions are necessarily fluctuating. It is difficult to foresee with accuracy the future trend of conditions of sale and of other economic factor. There has been a systematic and continuous decline in sale prices of imported matches and of matches manufactured in India with imported woods by foreign companies. To what extent the foreign companies will carry on their present policy of working even at a loss to ultimately secure the entire Indian market remains to be seen.

The present duty of Re. 1-8 per gross on imported matches has no doubt handicapped the foreign manufacturer but it has stimulated Indian manufacture. The evasion of duty by importing logs has alone been helping them to produce their matches in India at a comparative cheaper cost and thus to kill the indigenous enterprise. We therefore think that for the present the rate of Re. 1-8 per gross on imported matches and a proportionate duty on imported splints, veneers and match logs should be levied to furnish the necessary protection.

99. In addition to the protective duty suggested by us we recommend the following forms of assistance being rendered by or through Government:—

- (a) Cheapening the cost of wood.
- (b) Encouraging and developing the cheap manufacture of chemicals and paper in India.
- (c) Special concession rates of railway freight for match factories using indigenous timber should be given for all raw materials imported or transported inland.
- (d) Special rates should be allowed for transport of finished matches manufactured from indigenous wood to sale markets in India and to principal sea-ports.

APPENDIX I.

Name of Articles.	Country of origin.	Price in Sterling c.i.f. Karachi.	Handling charges in Rupees.	Transport charges to Factory per Maund Rupees.
Inside boxes paper .	Germany	27 10 0 Kg.	20 4 0 Kg.	1 11 1
Outside boxes paper .	Germany	27 10 0 Kg.	20 4 0 Kg.	1 11 1
Half dozen packet-paper	Germany	16 5 0 Kg.	9 4 0 Kg.	1 11 1
Half gross packet paper.	Germany	34 0 0 Kg.	22 12 0 Kg.	1 11 1
Oil paper . . .	Germany	0 5 5 per cent. metre.	0 1 10 per cent. Mr.	4 2 4
Phosphate of amonia	Belgium	46 0 0 per ton.	17 8 0 per ton.	4 2 4
Amorphous phosphorus.	Norway	221 0 0 per ton.	47 8 0 per ton.	4 15 8
Black Antimony .	Germany	56 10 0 Kg.	24 0 0 Kg.	4 2 4
Red Lead . . .	Germany	40 10 0 Kg.	6 5 0 Kg.	2 8 1
Peroxide of Manganese	Germany	28 0 0 Kg.	10 14 0 Kg.	4 2 4
Ferric Oxide . . .	U. K.	23 0 0 Kg.	10 14 0 Kg.	4 2 11
Chlorate of Potash .	Germany	33 10 0 per ton.	6 5 0 per ton.	4 15 6
Bichromate of Potash	U. K.	50 0 0 Kg.	27 0 0 Kg.	2 7 9
Sulphur	Germany	13 10 0 Kg.	15 0 0 Kg.	2 5 3
Glass Powder . . .	Germany	7 8 0 Kg.	5 6 0 Kg.	2 7 9
Paraffin Wax . . .	U. S. A.	36 0 0 per ton.	9 10 0 per ton.	3 5 1
Potato Starch . . .	Holland	22 16 8 Kg.	5 9 0 Kg.	2 7 9
Dextrine	Holland	29 15 0 per ton.	6 2 0 per ton.	4 2 11
Glue	Germany	57 0 0 Kg.	5 10 0 Kg.	2 7 9
Gum Arabicum . . .	Germany	55 10 0 Kg.	6 2 0 Kg.	1 11 1
Gum Tragacanth . .	Germany	177 10 0 Kg.	7 0 6 Kg.	1 11 1
Gun Accroides . . .	Germany	19 19 8 Kg.	6 5 0 Kg.	4 2 4

NOTE:—

(1) Kg. = per 1000 Kilograms.

(2) Customs duty in each case is 15 per cent., except for Sulphur which is duty free.

Bhargava Dipshalaka Yantram, United Provinces.*Letter dated the 4th April 1927.*

With reference to your No. 209, dated the 7th ultimo, I have the honour to inform you that because our factory is still in the experimental stage and we have started working only about a month back we are not in a position to furnish you with the answers of the series of questions you have sent. However we may inform you that the capacity of our plant is 150 gross per day but we are not turning out even that quantity at present.

Letter from the Tariff Board, to all Local Governments, dated 7th January 1927.

I am directed to invite a reference to the Resolution of the Government of India in the Commerce Department, No. 235-T. (14), dated 2nd October 1926, in which the Indian Tariff Board was directed to investigate the question of granting protection to the Match Industry in India.

2. The subject of match manufacture in India has been dealt with in detail by Mr. R. S. Troup, Imperial Forest Economist to the Government of India, in his memorandum entitled "The Prospects of the Match Industry in the Indian Empire, with particulars of proposed Match Factory Sites and Woods suitable for Match Manufacture" which was published in 1909. Since that time, however, there has been considerable research work done in connection with the suitability of various kinds of wood for the manufacture of splints and veneers and it is believed also that the number of factories has increased. The Board is anxious to obtain as early as possible all information regarding the condition and prospects of the match-making industry in your province.

3. I am also to request that you will be so good as to furnish the Board with detailed information on the following points:—

A. (1) The existence, quantity and suitability of wood for the manufacture of—

- (i) splints,
- (ii) veneers, and
- (iii) packing cases.

(2) The proximity and accessibility of the source of supply of such materials with special reference to the question whether it would be possible to obtain them from a single source.

(3) The quantity, kind and cost of fuel available.

(4) The available supply of labour for the factory and the wages of such labour.

B. (1) The sites (whether included in Mr. Troup's memorandum or not) which are considered suitable for the establishment of match factories in your province and the special advantages of each site. If possible, maps indicating the sites may be supplied.

(2) The number, location and size of the match factories in your province and the approximate date of the establishment of each.

(3) The extent to which indigenous wood is utilised in such factories for—

- (a) splints,
- (b) veneers, and
- (c) packing cases.

(4) Whether any such factories have been erected on the sites selected by Mr. Troup in the memorandum referred to above.

(5) Whether any such factories have been closed as a result of financial losses and, if so, what have been the main causes of such failures.

(6) Whether any such factories are owned, controlled or managed by foreign capitalists.

C. (1) What arrangements are in force for the sale of trees from Government forests to match factories?

(2) What is the royalty levied?

(3) Have any concessions for extracting timber for the manufacture of splints, veneers or packing cases been granted? If so, to whom?

(4) Whether as a general question of policy any restrictions are imposed by the Local Government on the grant of concessions to applicants of foreign nationality. If so, what is the nature of such restrictions?

(5) Has the Forest Department undertaken or is it likely to undertake in the near future any operations for the establishment of plantations of trees suitable for the manufacture of matches?

(6) Have any areas been planted with suitable trees by companies or firms undertaking the manufacture of matches?

D. What are the conditions of transport:

(a) during the monsoon;

(b) during the dry season;

and what is the cost of freight by road, river, rail or sea, whichever method or methods would be necessary with reference to each site mentioned in reply to B (1)?

E. What is the extent of the local demand for matches? How far can the factories dispose of their outturn in the local market?

F. What stage has the industry reached in your province?

4. I am to say that the Board may find it necessary to inspect some of the factories or sites for factories in your province and would welcome any suggestions which the Local Government may make in regard to the arrangement of a tour programme for this purpose.

5. The Board would be glad to receive your reply to this letter before the 20th of February 1927.

Government of Burma.

Letter dated the 7th February 1927.

In reply to your letter No. 58, dated the 7th January 1927, I am directed to forward for the information of the Tariff Board a copy of a memorandum prepared by the Chief Conservator of Forests, Burma, together with a copy of letter No. 320—1-2-8, dated the 26th January 1927, from the Chief Inspector of Factories, Burma, containing the information on the points referred to in paragraph 3 of your letter quoted above.

2. As regards paragraph 4 of your letter, I am to say that the question of tour programme has been dealt with in the demi-official letter* No. 12-I. dated the 4th February 1927, from the Hon'ble Minister for Forests to Mr. P. P. Ginwala.

3. A statement showing the value of matches and match-making materials imported into and exported from Burma during the period 1907-08 to 1925-26 so far as figures are available, is also enclosed for the information of the Board.

* Not printed.

Enclosure No. I.

THE MATCH INDUSTRY IN BURMA.

Memorandum on the points detailed in paragraph 3 of letter No. 58, dated 7th January 1927, from the Secretary to the Tariff Board to the Chief Secretary to the Government of Burma.

Before attempting to give the information called for under the detailed heads, I must point out that Mr. Troup's Memoir on the prospects of the match industry in the Indian Empire was published in 1910 and in view of the position of the industry in India at that time, could only be of the nature of a preliminary reconnaissance of the possible prospects of the match industry. So far as concerns Burma, there were no statistics of the quantities of timber suitable for the match industry that were available in the country and in the absence of statistics any tentative selection of sites could only be theoretical. Except in respect of statistics recently collected for Insein Division, we have as yet no statistics as to the possible supplies of timber suitable for the match industry. With this preamble, I give below what information I can under the detailed heads.

A. (1) *The existence, quantity and suitability of wood for the manufacture of*

- (i) *Splints.*
- (ii) *Veneers.*
- (iii) *Packing cases.*

The same woods are, as a rule, used for splints, veneers and packing cases. As there is no great export from Burma, packing cases are not greatly in demand and are mainly made from timber which has been rejected as unsuitable for splints and veneers.

Suitable woods for the manufacture of matches exist in the forests of Burma and the quantity is adequate. They are, however, scattered over a large area in a sparse mixture with other species and it is very doubtful if extraction for the purpose of a sustained supply to a factory can be undertaken as an economic proposition. To work any but the most accessible areas will render the cost of the timber delivery at the factory prohibitive. The supply of suitable timber on these areas is limited and precarious and the agencies available for delivering the timber at the factory are uncertain and unreliable. The only possible exception to this generalisation is the case of pine (*Pinus Khasya*) of which a concentrated and reasonably accessible supply is available in parts of the Federated Shan States. I understand, however, that resin and the existence of knots cause this wood to be viewed with disfavour by the match industry.

Such being the position, it is believed that for purposes of the economic supply to a factory it would be necessary to undertake planting operations.

A. (2) *The proximity and accessibility of the source of supply of such materials with special reference to the question whether it would be possible to obtain them from a single source.*

This query is largely answered by my note under A (1). There is, so far as is at present known, no accessible source of supply that is capable of affording a sustained yield. In all forests timber suitable for the manufacture of matches is scattered over large areas frequently presenting difficulties in working and seldom aggregating on an average more than a fraction of a ton to the acre.

A. (3) *The quantity, kind and cost of fuel available.*

In Rangoon town wood fuel in the shape of conversion wastage is at present available at about Rs. 7 per 100 cubic feet within a radius up to two miles of a sawmill. For factories less favourably situated the cost of wood fuel may be placed at Rs. 12 per 100 cubic feet stacked. There should however be considerable quantities of fuel available from wastage at the factory itself. Outside Rangoon and especially away from main trading centres, the supply

of wood fuel is precarious and any concern requiring fuel should base its cost on the cost of coal.

A. (4) *The available supply of labour for the factory and the wages of such labour.*

Unskilled labour for a factory is obtainable at Rs. 0-12-0 to Re. 1 per day per individual employed. Reliable skilled labour is difficult to obtain and it is believed that a European engineer is essential for supervision if the complicated machinery of a match factory is to be maintained in a reasonable state of efficiency.

B. (1) *The sites (whether included in Mr. Troup's Memorandum or not) which are considered suitable for the establishment of match factories in your province and the special advantages of each site. If possible maps indicating the sites may be supplied.*

In view of the precarious nature of the timber and fuel supplies and the fact that all chemicals have to be improved, it seems to me that the only sites that need be considered at present must be in the vicinity of large towns and probably only Rangoon, Mandalay and possibly Moulmein are worth considering. A site close to the forests for the manufacture of veneer and splints only combined with a finishing site near the market is not a practical proposition under existing conditions. Subject to the above, I give below a list of possible centres and append a map* showing their location. I must add that these centres are listed entirely on theory and that before any site could be considered in practice, a proper examination of all the factors involved would be necessary. No such examination can be made on the existing information. To collect reliable statistics for the purpose of gauging supplies of timber would involve a detailed examination of the forest concerned in each case. This detailed examination would take time and would probably involve an expenditure that was incommensurate with the results to be gained.

Possible centres for match factories.

1. *Katha* (Troup S. N. 3). From its position any supplies available from the forests on the Irrawaddy above Katha can be collected there. It is also connected with the rest of Burma by railway and steamboat service.

2. *Inywa* at the mouth of the Shweli river below Katha is in a position to tap supplies from the Shweli river and connected with Katha and Mandalay by a regular steamboat service.

3. *Mandalay* (Troup S. N. 1) is the centre of the timber trade in Upper Burma and under existing conditions would be a more suitable site than Katha or Inywa.

4. *Monywa or Alon* (Troup S. N. 8 and 9) is at railhead on the Chindwin river and is the most suitable site to deal with supplies from that river.

5. *Pyinmana* is at the junction of the branch railway line to Magwe which taps considerable forest areas that are not unduly difficult to work.

6. *Myohla* (Troup S. N. 12).—This site is advocated by Professor Troup. It is just below Pyinmana and has certain facilities in that water transport is available in addition to rail transport.

7. *Toungoo* (Troup S. N. 26).—There are possibilities of obtaining timber *via* the Kabaung and Sittang rivers.

8. *Pegu (or some site on the Pegu river above Pegu)*.—There are scattered supplies in the drainage of this river and little doubt that the forests will within a reasonable time be connected with Pegu by a motor road.

9. *Rangoon*.—The main trading centre of Burma.

10. *Moulmein*.

11. *Tavoy* (Troup No. 30).—Tavoy will shortly be connected with the rest of Burma by rail and a site there or on the railway to the north will be

* Not printed.

worth considering. There are large quantities of timber but their suitability for matchwoods has not been investigated.

12. *Mergui* (Troup No. 31).—There are large quantities of timber but their suitability for matchwoods has not been investigated. Labour would have to be imported.

13. *Kalaw in the Federated Shan States*.—Kalaw is on the railway line and possesses considerable possibilities if *Pinus Khasya* is acceptable to the match industry. There are considerable supplies of this species in the vicinity and under proper working a sustained and reasonably accessible supply of the timber could be made available.

B. (2) *The number, location and size of the match factories in your province and the approximate date of the establishment of each.*

There are at present four match factories, all located in Rangoon, as follows:—

(1) The Mahlwagon Match Factory—Owners Messrs. Adamjee Haje Dawood and Company, Limited. Established in 1923 (about). Situated in Rangoon on the railway line and connected by a small stream with the Pegu River. Outturn—2,500 cases of 50 gross each per month.

(2) The Kamaung Factory—Owners The Burma Match Company. Established in 1910. Situated on the right bank of the Rangoon river about 3 miles below Dalla (Rangoon). Outturn—500 cases per month.

Changed hands twice, being opened by Mr. Lim Chin Tsong, then transferred to a Chetty firm and later in 1925 to the Burma Match Company—a subsidiary company of the Kemmendine Match Company. Influenced by Swedish Match Companies.

(3) The Kamayut Factory or Muslim Factory. Established about 1922. A very small factory on the Prome Road, Rangoon, belonging to Mr. Abawath, 28, Edward Street, probably turning out about 200 cases per month of a very inferior match.

(4) The Rangoon Match Works. Established about 1923. Situated in Rangoon and about the same size as the Kamayut Factory No. (3), and turning out about 500 cases per month.

This factory is under the control of the Japanese Match industry and depends almost entirely on imported woods from Japan.

B. (3) *The extent to which indigenous wood is utilised in such factories for*

- (a) *splints,*
- (b) *Veneers,*
- (c) *packing cases.*

The Rangoon Match Works (No. 4) depend almost entirely on woods imported from Japan. The other factories use local woods as far as possible; but subsidize their supplies by imported wood. Messrs. Adamjee Haje Dawood and Company (No. 1) import some of their supplies from the Andamans.

B. (4) *Whether any such factories have been erected on the sites selected by Mr. Troup in the memorandum referred to above.*

The only site suggested in Mr. Troup's memorandum referred to that has been utilized is Mandalay and the Factory there has closed down.

B. (5) *Whether any such factories have been closed as result of financial losses and, if so, what have been the main causes of such failures.*

In addition to the factories enumerated under B (2) above, there was a factory at Mandalay, *vide* details below, and a small factory in Kemmendine, Rangoon, which was burnt down in 1926.

The Irrawaddy Match Factory, Mandalay, was established by Mr. Darwood about 1910-11 and closed down about 1918 apparently on the grounds of financial losses. It was bought by the Kemmendine Match Company (see No. (2), B (2), under Swedish control) in 1925 and run for a year when it was

again closed down, apparently for financial reasons, one reason being that the match manufactured was inferior.

B. (6) *Whether any such factories are owned, controlled or managed by foreign capitalists.*

Foreign capitalists are interested in two factories, the Kamaung Factory (Sweden B (2), No. (2)) and the Rangoon Match Works (Japan, B (2), No. (4)).

C. (1) *What arrangements are in force for the sale of trees from Government forests to match factories?*

Outside reserved forests trees are extracted under license in the ordinary way. Inside reserved forests the right to extract is settled by putting areas up to tender.

C. (2) *What is the royalty levied?*

The royalty on timber extracted by license varies from Rs. 2 per ton of 50 cubic feet in Upper Burma to Rs. 4 per ton of 50 cubic feet in Lower Burma. The royalty on timber extracted from reserved forests is based on the tenders received. Normally it would be about Rs. 4 or Rs. 5 but in one case as much as Rs. 12-8-0 per ton of 50 cubic feet was tendered and is being paid.

C. (3) *Have any concessions for extracting timber for the manufacture of splints, veneers, or packing cases been granted? If so, to whom?*

In 1910 an agreement was entered into with Mr. Lim Chin Tsong to work timber suitable for matches from the Mahuya and Paunglin reserves of the Insein Forest Division at a rate of Re. 1 per ton of 50 cubic feet during the first five years and at ordinary rates, Rs. 3 per ton, thereafter. Working under this agreement ceased in 1922. Extraction totalled 400 tons during the concession period and roughly a total of 1,000 tons thereafter.

In 1914 Messrs. J. W. Darwood & Co., Mandalay, were granted favourable royalty rates (annas eight per log over 4½' girth and annas four per log below 4½' girth) for a period of seven years.

C. (4) *Whether as a general question of policy any restrictions are imposed by the local Government on the grant of concessions to applicants of foreign nationality. If so, what is the nature of such restrictions?*

The question has not, in my experience, arisen.

C. (5) *Has the Forest Department undertaken or is it likely to undertake in the near future any operations for the establishment of plantations of trees suitable for the manufacture of matches?*

The Forest Department has not undertaken any operations for the establishment of plantations of trees suitable for the manufacture of matches. It is possible that such plantations would be a sound investment; but until experiments have been undertaken it is impossible to gauge the finance of the prospects of growing matchwoods as a pure crop as little is known about their silvicultural requirements. Experiment is necessary to test results on different soils.

Whether these experiments should be undertaken is for Government to decide. They are unlikely to yield conclusive results in less than 15 years. Personally I favour these experiments being undertaken by Government and am of opinion that private concerns would be well advised to leave planting alone until experiment has settled the economy of the operations. That experiments have not been undertaken hitherto by the Forest Department is due to shortage of staff and the fact that its energies of recent years have been concentrated on solving the question of providing timber and fuel for the local people in the accessible parts of the reserved forests.

C. (6) *Have any areas been planted with suitable trees by companies or firms undertaking the manufacture of matches?*

No areas have been planted by companies or firms.

D. *What are the conditions of transport?*

(a) *during the monsoon;*

(b) *during the dry season;*

and what is the cost of freight by road, river, rail or sea, whichever method or methods would be necessary with reference to each site mentioned in reply to B (1)?

In view of my reply to B (1) it seems premature to deal with the factor of transport in respect of sites noted as possibly worth considering. The conditions of transport depend entirely on the situation of the forests with reference to the site. Where rail transport is available, it would probably be given preference over water transport as it is quicker and less precarious. Where roads exist as in the case of some of the forests connected with Rangoon and where distances are moderate, it is probable that motor transport would displace both road and rail transport in view of the lighter transhipment charges.

The all-in cost of timber delivered in the factories in Rangoon is about Rs. 30 per ton of 50 cubic feet.

E. What is the extent of local demand for matches? How far can the factories dispose of their outturn in the local market?

The local match is now trying to live down the bad reputation of the matches made in the beginning of the industry. People regard a white match as a good one and though now the local match is white, the first matches were grey coloured and not so good. The demand for local matches is therefore not very great and the biggest of the local factories now exports to Madras. It is believed however that with improvement in the quality of the output, the demand will increase.

F. What stage has the industry reached in your province?

The industry in Burma is still in the pioneer stage. It started in 1910-11. It has progressed but it has not prospered. Nor does it appear to be established on a firm basis. It has suffered from the usual undue optimism and haste which so frequently characterize new lines of enterprise in the country. There was no proper attempt made to study and take stock of the possible supplies of raw material before a factory was started. The supplying agencies were not properly organized with the result that supplies were always precarious and when competition arose the cost of raw material became prohibitive. Expensive and complicated machinery was introduced without the necessary skilled labour to keep it efficient with the result that the factor of wastage was abnormally high.

G. General.—The Forest Department is solely concerned with the supplies of wood required for the industry and I confine my remarks to this subject.

Sources of supply of timbers.—I have already pointed out that wood suitable for the industry (except pine which the industry in Burma does not accept) are nowhere found concentrated in the natural forest but occur scattered over large areas in a mixture with other species. This fact alone must render the supply of raw material to the mill expensive and even precarious.

Statistics are admittedly inadequate as regards the quantities of those woods that exist. This is being remedied gradually, but in view of the scattered occurrence of the woods, it is doubtful if reliable statistics are obtainable and if, when obtained, they will help much.

It seems therefore that if a steady supply at reasonable rates is to be made available this supply will have to be artificially created by planting. Such planting should however not be rushed at; but should be started only after full consideration of the financial aspect as a result of careful experiment. The forest soils of Burma are very variable and it may not be easy to get an accessible continuous block that will yield good result. If Government country is unable to produce any of the ingredients required to manufacture lines, I recommend that these experiments should be undertaken by the Forest Department. In this connection it must however be remembered that the country is unable to produce any of the ingredients required to manufacture matches except the wood. All chemicals, machinery and even paper have to be imported. Under the circumstances it is questionable whether the arti-

ficial creation of supplies of wood in the country is of sufficient importance to justify special steps being taken to this end.

Organization of supplies.—Various suggestions have from time to time been made by those interested in the industry that Government should take special measures to safeguard supplies and generally create a monopoly in favour of the industry. These suggestions were generally on the lines of prohibiting the extraction of species suitable for the industry for other purposes and allowing favoured rates of royalty on those species. In the early days of the industry these suggestions were acceded to as far as possible. Generally however the suggestions were vague and unpractical. In the light of practice they have not helped the industry.

The supplies from the unclassified forests are uncertain. The only reliable sources of supply are the reserved forests and the area of these forests accessible to the economic extraction of matchwoods is very limited. The accepted policy of Government in respect of reserved forests is that extraction should be undertaken by private agency and that the right to extract the produce available should be decided by competition at auctions or as a result of calling for tenders.

In consideration of the demands of the industry the right to work species of known utility for matchwoods has so far as possible been put forward for tender separately from the right to work other species. It is doubtful if this is economically sound as normally it should be cheaper to work all woods in one operation. The extraction of timbers other than teak throughout the province is however so ill-organised that it seems desirable to give those interested in the Match Industry a chance to make independent arrangements for extracting their supplies.

Imports of timber for the Match Industry.—The principal sources of import are the Andamans and Japan and the quantity imported is not great. In view of the precarious supply in the country it is under existing circumstances undesirable to interfere with these imports.

Enclosure No. 2.

Letter No. 320—1-2-8, dated the 26th January 1927, from the Chief Inspector of Factories, Burma, to the Secretary to the Development Commissioner, Burma.

Subject:—Match Industry in India—Investigation by the Tariff Board into the question of granting protection to the.

In reply to your letter No. 835—61-9 (27), dated the 20th January 1927, on the subject noted above, I have the honour to report that I have made inquiries and to submit the following views. As I presume that the Forest Department have been addressed on this subject I have practically no observations to make on the wood supply. The numbering of paragraphs in this letter correspond to those in India's letter under reference.

3A. (1) Splints, veneers and packing cases are all made, so far as my inquiries go, now from timber obtained in Burma, or from India or the Andamans.

3A. (3) There is sufficient refuse wood for the heating and part of the power requirements of the factories. Electricity from a public supply is generally used for the rest of the power. Where this cannot be obtained wood fuel is used. At present the amount of refuse is considered to be excessive, mainly owing to lack of skill on the part of the workmen. When this is remedied the fuel question may become more important.

3A. (4) The machine work is mainly done by Indians from the Central Provinces and by Tolugs and Oorias. They have to be trained and do not stay long generally at the factories. Pay from Rs. 21 to Rs. 25. Labour supply is insufficient and rather unsatisfactory.

The filling, etc., is done by Burmese girls. This class of labour is more permanent and satisfactory. They become much more skilful than the corre

sponding labour in Indian factories so that although the piece work rates are not much higher than in India some of the girls get as much as Rs. 8 or more a week. The supply of this labour is adequate.

3B. (2) The accompanying table gives the particulars asked for :—

List of Match Factories in Burma.

No.	Name.	Locality.	Number of persons employed.	Approximate date of establishment.
1	Adamjee Haje Dawood & Co's Match Factory.	Upper Pazundanug, Rangoon.	1,340	15th January 1924.
2	The Rangoon Match* Works.	A. V. Joseph's Road, Mahlwagon, Rangoon.	130	See note.
3	Messrs. M. E. Abowath & Co.'s Muslim Match Factory.	Mile 5, Kamayut, Rangoon.	115	2nd September 1925.
4	Dewan Bahadur's The Burma Match Company's Match Factory †	Kanoung, Pyawbwe P. O., Hantawaddy District.	464	19th April 1916.
5	The Mandalay Match Company's Match Factory.	C. Road, Minde Ekin, Qr. Mandalay.	192	27th March 1913.

* It was first established by Osman Masti Khan in 1924, it was burnt down in 1926 and was taken over by the present owners and rebuilt. It may be noted that the present owners had previously another factory established in 1924 which was burnt down in 1926.

† 4. This was established in 1916 by a Chinese British subject. He failed and the mill was taken over eventually by the present owners.

3B. (3) Splints are made from logs from Burma and Port Blair, Veneers from Burmese and Indian logs and packing cases from Burmese timbers. The supply of these timbers appears to be adequate now although there has been trouble in the past. No factories for the manufacture of splints, etc., have been established in the forest although this idea has been considered. These separate establishments will probably not be found necessary until the factories have to go further afield for their supplies. It does not appear that any woods obtained from outside the Indian Empire are used. The imports of splints seem to have quite stopped although when the industry was first started this was general.

3B. (4) Only B class factories have been erected. Their situations are shown in the table given above.

3B. (5) Some factories have had troubles with finance. All the factories mentioned in the table are running now except the one at Mandalay. It is rumoured that this is to be moved.

3B. (6) One factory No. 2 in the list is understood to be largely financed by Japanese although nominally an Indian concern. Another No. 5 is under Swedish control and management and it is believed that Swedish or Japanese interests are represented in some of the others.

6D. In the case of a large Rangoon factory 80 per cent. of the timber comes by water and 20 per cent. by rail. This refers to Burmese woods only. The amount of woods imported from India and Port Blair is believed to be unimportant. There is no difficulty in transporting the timber. If it were desired to use timbers from far upcountry no doubt separate splint factories would have to be built if the timber could not be rafted.

6E. There is no difficulty in disposing of all the matches now manufactured. One factory sends 35 per cent. of its outturn to India, more, it is believed, to attack the importing Swedish firms than because there would be any diffi-

duty in selling the matches locally. The idea seems to be to prevent the Swedish firms putting up the price in India and using the high profits to enable them to dump in Burma and to ruin the Burma Match industry. There is considerable rivalry between the local producers and importing firms and kid gloves are not in much demand by either side.

F. The industry in this province is quite healthy and growing up nicely. It still requires protection owing to the labour being unskilled and the wastage consequently high, but the manager of the biggest firm here said that in 10 years time protection would no longer be required. The number of persons employed in the industry is only shown in part by the table in this letter. No account has been taken of the forest workers, rafters, etc. As a set off to the drop in customs duty on matches it is suggested that the extra duty on chemicals, labels and papers, the income-tax obtained from manufacturers and the royalty on forest produce should be considered.

Statement showing the value of matches and match making materials imported into and exported from Burma and the amount of import duty realised thereon during the period 1907-08 to 1925-26.

Years.	IMPORTS.											EXPORTS.				
	MATCHES.					TIMBER USED FOR THE MANUFACTURE OF MATCHES.		Total Cols. 6-8.	Duty on matches.	Duty on splints and veneers.	Total Cols. 10-11.	MATCHES.				
	From Europe.	From other countries.	From India.		Total Cols. 2-5.	Pine and dealwood.	Splints and veneers.					To Foreign Countries.	To India.		Total Cols. 13-15.	
			Foreign merchandise.	Indian merchandise.				Foreign Merchandise.	Indian Merchandise.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
	Val. Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Val. Rs.	Rs.	Val. Rs.	Rs.	Val. Rs.
1907-08	1,93,755	11,18,485	45,486	...	13,57,726	...	...	13,57,726	...	...	...	...	2,872	...	2,872
1908-09	1,81,798	10,29,337	42,356	...	12,53,491	...	...	12,53,491	...	...	...	...	23,596	...	23,596
1909-10	1,53,015	14,42,018	40,820	...	16,35,853	...	...	16,35,853	...	...	...	...	27,595	...	27,595
1910-11	1,95,759	13,27,379	54,233	...	15,77,371	...	...	15,77,371	...	...	...	1,440	28,385	...	29,825
1911-12	1,66,819	13,06,119	45,666	...	15,18,604	...	...	15,18,604	...	...	...	397	30,331	...	30,728
1912-13	1,78,706	17,11,004	61,663	...	19,51,373	...	...	19,51,373	...	...	...	2,310	28,904	...	31,214
1913-14	1,78,698	13,30,128	76,041	...	15,84,867	...	...	15,84,867	...	...	...	3,299	18,867	...	22,166
1914-15	1,69,965	12,16,500	88,819	...	14,75,284	...	...	14,75,284	...	...	...	13,653	20,973	...	34,626
1915-16	1,22,687	19,3,031	80,158	...	21,41,876	...	...	21,41,876	...	...	...	16,613	6,660	...	23,273
1916-17	1,87,055	17,06,276	1,05,405	...	19,98,736	...	...	19,98,736	1,42,069	...	1,42,069	2,350	5,609	...	7,959
1917-18	47,526	21,42,311	83,820	...	22,73,657	...	...	22,73,657	1,64,821	...	1,64,821	...	5,453	...	5,453
1918-19 . . . . .	...	34,89,660	1,52,376	...	36,42,036	...	...	36,42,036	2,61,947	...	2,61,947	...	1,191	...	1,191
1919-20	7,036	28,60,885	1,95,254	...	30,63,175	...	...	30,63,175	2,13,587	...	2,13,587	4,571	956	...	5,527
1920-21	33,669	18,37,597	1,24,274	...	19,95,540	...	...	19,95,540	1,93,433	...	1,93,433	38	1,772	...	1,810
1921-22	1,01,786	30,24,331	2,09,806	...	33,35,923	...	...	33,35,923	17,61,732	...	17,61,732	...	2,316	...	2,316
1922-23	23,120	21,64,620	2,29,362	...	24,17,102	31,331	...	24,48,433	21,94,332	...	21,94,332	...	3,019	...	3,019	
1923-24	27,358	14,15,907	1,77,661	...	16,20,926	1,05,578	...	17,26,504	15,74,427	...	15,74,427	...	9,991	...	9,991	
1924-25	22,615	8,52,307	1,04,666	...	9,79,568	530	1,89,881	11,69,999	9,50,679	2,17,993	11,68,672	...	575	...	575	
1925-26	6,07,551	9,87,495	61,649	64,271	17,20,966	1,55,550	23,380	18,99,896	17,58,937	55,130	18,14,067	...	303	3,21,029	3,21,332	

Government of Madras.

(1) *Letter dated the 17th February 1927.*

With reference to your letter No. 58, dated the 7th January 1927, regarding match industry, I am directed to forward a note prepared by the Director of Industries and the Chief Conservator of Forests on the several points raised in your letter. Many of the match factories in this Presidency are not sufficiently important to be visited by the Board. The Board may, however, inspect the three factories situated in Madras if their programme includes a visit to this city. They may also, if time permits, visit with advantage the factories at Olavakot and Sattur as well as the power driven factories at Tirumalai and Alwaye in Travancore and Cochin respectively.

Enclosure No. I.

NOTE.

At the outset, it may interest the Tariff Board to know what assistance has been given during the last few years by the (two) Forest and Industries Departments to persons who contemplated the establishment of match factories. The question of conducting a survey of the possibilities of the match industry in the Madras Presidency received consideration, but finally it was decided that the Department of Industries could best assist the industry by furnishing, in consultation with the Forest Department, inquirers with information as to the availability of timbers likely to prove suitable, their quality and distribution and the price at which they could be made available at various centres, and by placing the inquirers in touch with manufacturers of up to date machinery and chemicals. Assistance has been rendered on these lines to a considerable number of enquirers. A number of industrialists who have started or contemplate starting small factories do not appear adequately to have appreciated the vital necessity of selecting a suitable site for their operations, and of ascertaining before-hand whether suitable match woods can be delivered at the factory site at a price which will admit of manufacture at a profit. Instances have occurred, and will be referred to later, where small concerns have come to grief owing to the failure of their proprietors to make the essential preliminary enquiries. A scheme for the starting of a small match factory requires to be very carefully investigated as it seems doubtful whether in view of the development of the larger match making companies small factories worked by hand can possibly hope to operate at a profit. It is certainly essential that before a factory of this kind is started, the cost of raw materials at site, chemicals and labour should be worked out with the greatest care and it should preferably be established near the source of timber supply and in proximity to a forest depôt. The difficulty of extracting timber at a price low enough to enable match manufacture to be conducted at a profit is not always appreciated by enquirers who appear to think that it should be an easy matter for the Forest Department to supply them with timber in the required quantity at a sufficiently low price whereas the centres where suitable timber is available appear to be very few.

2. We will now proceed to reply so far as information is available to the questionnaire for the Tariff Board.

A. (1) *The existence, quantity and suitability of wood for the manufacture of (i) Sprints, (ii) Veneers and (iii) packing cases.*—In order to answer this question adequately, a detailed survey of the Presidency would be required. The idea of such a survey was first mooted in January 1922 and the Chief Conservator of Forests was called upon to collect preliminary details with a view to facilitating the work of the special officer if appointed subsequently. The preliminary enquiries that were made by the Forest Department went to show that Bombax and other species suitable for match

making that grow in deciduous forests are so scattered that extraction costs are rendered excessive. Mr. Cox, the then Chief Conservator of Forests, suggested the ever green forests as a source of supply, and as a result it was arranged to test some of the commoner species of the ever greens. The Chief Conservator, however, on learning that 10 annas a c.f.t. at the factory was as much as the industry could afford to pay, considered that any idea of starting a match industry should be abandoned as far as timber is concerned. The projected survey was therefore definitely abandoned and hopes for the industry were centred on the utilisation of the Eeta bamboo, which unfortunately the Malabar Match Company have found impossible to exploit successfully for their Always factory. As no systematic collection of data in regard to the availability and suitability of wood for the manufacture of splints, veneers and packing cases has been made, this question cannot be answered in any great detail and the information given below has for the most part been collected from Mr. Troup's reports, Mr. Ghose's possibilities of Match Industry in Bengal, "Note on Prospects of establishing Match Factories in South India" by the Conservator of Forests, Travancore, and reports from the Forest Economist, Dehra Dun and various interested firms.

(i) *Splints*.—Tests carried out by different firms on the same species are in many cases contradictory; for instance, Ashleigh and Co., London, reported that *Cullania excelsa* was entirely unsuited for match making, whereas a Calcutta firm considered it suitable for splints, if bleached. Mr. Ghose gives a long list of suitable woods but Mr. Pearson of the Western India Match Company, a unit of the Swedish Combine, says that in the course of his investigation he has only found two really suitable species. *Populus euphratica* which is not found in Madras forests, and Mango which is not common in reserved forests. The requirements of a good match wood are that it should be white, straight-grained, moderately light and porous and unfortunately few of the available timbers come up to this specification.

The following is a list of woods that might be suitable for splints.

<i>Deciduous.</i>	<i>Evergreen.</i>
Ailanthus excelsa.*	Vateria indica.*
Bombax.	Alstonia scholaris.*
Anthocephalus Cadamba.*	Lophopetalum Wightianum.*
Boswellia serrata.	Machilus.
Gmelina arborea.*	Polyalthia fragrans.
Odina Wodier.	Diospyros.
Hymenodictum excelsum.	Canarium strictum.*
Semicarpus anacardiaceae.	
Sterculia urens.	
Tetrameles nudiflora (said by Troup to be unsuitable).	
Trewia nudiflora.	
Garuga pinnata.	

(Those marked with asterisk * would probably fetch better prices for purposes other than match-making.) The species included in both lists grow scattered among other trees rendering cheap exploitation impossible. The idea of attempting to work the industry on these lines has been rejected many times by Forest officers whose judgment is borne out by the recent experience of the Western India Match Company who report that they have proved that in most cases it does not pay to exploit single trees from mixed deciduous forests.

(ii) *Veneers*.—Many species appear to be suitable for veneers for boxes and those enumerated in Appendix B, attached, have been favourably reported on. The species, however, are not gregarious and most of them grow in forests usually worked for fuel coupes.

(iii) *Packing cases.*—There are many woods suitable for packing cases but the prices which factories can afford to pay for timber for this purpose are on the low side.

3. A-2. We are not aware of any situation in Madras forests which could be worked to meet the demands of a match factory alone, because the match industry cannot utilise all kinds of timber. A match factory could only be cheaply supplied in conjunction with the working of the forests for other purposes, *i.e.*, timber production, and when it is considered that 75,000 c.ft. would be required annually for a small factory, it will be realised that the area required to yield the supply would be very large and consequently extraction costs would be high. If the outturn of the forests is 400 c.ft. an acre, and half of that is allowed as suitable for matches it would require annually 375 acres to be felled over. A scheme for exploiting woods for match manufacture should preferably be linked with a general scheme for extracting all marketable timbers and utilising waste ends for splints and veneers by working them up at the site. The only possibility of the successful establishment of a match factory would appear to be in connection with a large scale exploitation unit such as has been proposed for Someshwar or Nilambur, the match factory utilising the species suitable for its use and the veneer plant and saw mills the remainder. The match industry cannot afford to pay much for its primary raw materials and it is only by large scale extraction that logs could be made available for match factories at a sufficiently low price. The only saw mill where the Forest Department have any quantity of soft woods is Olavakot, and there are already two match factories near there. In any location the Forest Department would have difficulty at present in supplying a sufficient quantity of suitable wood and under present circumstances, therefore, it seems probable that a large factory would have to use imported timber for splints and veneers.

4. B-1 and B-4. Mr. Troup has mentioned in his memoir a number of sites in the Northern Circle as possibly suitable for the establishment of match factories, but Mr. Lushington, a former Conservator of Forests, did not consider that any site in this circle would be suitable except somewhere along the Godavari river. The then Chief Conservator of Forests in 1922 stated that he could not conceive of a regular supply of species being forthcoming from the Agency forests. A match factory has recently been set up at Bellary which proposes to draw its supplies mainly from the Forest Reserve near Chelama. The Government forests can only guarantee a supply of 15,000 c. ft. per annum and that in not very suitable species, so that the factory is likely to experience some considerable difficulty in carrying on operations. A Cocanada gentleman contemplated some time ago the flotation of a company with the object of starting a large scale match factory at Rajamundry but no progress appears to have been made with the project. The objection to the establishment of factories at Tellichery, Udumalpet and Calicut is that it would not be possible to make available a cheap supply from reserved forests, owing to the cost of extraction and transport; while in the case of the two former at least there would not be sufficient supplies. A small factory has in fact been started at Udumalpet but information as to the scope of its operations and the source of its wood supply is not at present available. According to Mr. Troup, a match factory to be successful should be able to command (i) a sufficient supply of suitable and inexpensive wood, (ii) cheap transport from the forest to the factory and (iii) cheap transport from the factory to the area of consumption, while the factory should be capable of working all the year round.

We are unaware of any site in the Madras Presidency which fulfils these essential conditions. From the forestry standpoint, it is essential for the forests to be worked with a view to the conservation and improvement of forest capital, which means that all the crop must be made use of and in such a manner as to enable a fresh crop to grow advantageously. Owing to the nature of the Madras forests, it is impossible to procure adequate supplies of cheap timber. The Eeta bamboo in Tinnevely gave promise

of satisfying the necessary conditions, but as already stated it has so far been found impossible, in the factory established at Alwaye in the Cochin State, to overcome the technical difficulties experienced in utilising this material.

5. B-2. A statement, Appendix (A) embodying, so far as information is available, the names and location of the match concerns established in this Presidency, their capacity, date of establishment, timber used and capital invested, is attached from which it will be observed that the number of factories working at present is nine. Numbers 3 and 9 are under the same management, the former deriving its supplies of splints and veneers from the latter and working them up into manufactured form at their Madras factory. The Malabar Match Works, Palghat, is at present the only power driven factory although the Madras Match Factory, which at present contains only hand driven machines, will shortly, it is understood, be operated by power.

6. B-3. Indigenous wood appears to be utilised in all cases although the New Madras Match Factory has, it is believed, occasionally imported timber in logs from Japan.

7. B-5. Mr. Troup's criticism made 18 years ago that several of the match factories started in India up to that time were not successful owing chiefly to the wrong selection of sites still holds good and this coupled with the failure on the part of many factory proprietors to conduct the essential preliminary enquiries as to the availability of a suitable wood supply at a reasonable price accounts for the financial loss sustained by a number of factories. A typical case illustrating how an enterprise came to grief owing to the wrong selection of a site and insufficient preliminary enquiries into the supply of the requisite raw materials was brought to the notice of the Department of Industries in the year 1922-23. A firm in the Kistna district invested their capital in the establishment of a small factory without first ensuring that the requisite supplies of timber were available in the neighbourhood. After carrying on experimental manufacture for a year they had to close down operations. Another instance of failure occurred in Guntur where a party reported that the machinery obtained from a Calcutta firm had proved to be entirely unsatisfactory in practice. A party in the Madura district first proposed to start a factory on the banks of the Periyar river, but later transferred it to Madura, and then requested Government to open a timber depot there for the purpose of supplying him with certain varieties of wood. Inquiries made by the Forest Department indicated that while nine of the species required were not available, the remaining six were so scattered that their exploitation for a commercial enterprise would be entirely out of the question and furthermore they could not be made available except at a prohibitive cost and regular supplies could not be guaranteed. In April 1925, the proprietor transferred the machines to Shencottah with a view to locate the factory in proximity to the forest areas where match wood were believed to be available in quantity. As the coupe contractor was unable to supply the requisite quantity of 16 candies per mensem, the proprietor intimated that he was willing to shift the factory to any place, e.g., Kanjikot or Nilambur in South Malabar if the Forest Department would agree to supply him the quantity of timber required for an enlarged factory, viz., 50 c. ft. per day. He was informed in reply that though the West Coast would appear to afford a more suitable location for his concern, yet difficulty would be experienced even there in obtaining supplies of suitable wood at sufficiently low rates as all suitable match woods are also in demand for coffee and tea boxes and prices are therefore comparatively high, while although the Forest Department have a quantity of soft woods available at their Olavakot Saw Mills, there are already two match factories near there. A small factory started in the Cauvery delta near Tanjore also experienced difficulty in obtaining timber for the manufacture of splints and veneers at a price which would render commercial manufacture possible. These are not the only instances which have occurred of the establishment of factories in

unsuitable locations which have had subsequently to transfer the venue of operations elsewhere. Other factors which have contributed, in a greater or less degree, to the failure of match concerns have been the high cost of chemicals, the unsuitability of the machinery, lack of experience, capital and technical knowledge and last but not least the keen competition of the superior imported products.

8. B-6. There are no match factories in the Presidency which are owned, controlled or managed by foreign capitalists. The Swedish Match Combine are understood to contemplate the starting of a factory in the Madras Presidency but no definite information is available as to the location and scope of the projected factory.

9. C-1. There are no special arrangements.

C-3. No.

C-4. The question has not yet arisen in any form.

C-5. No, as it is not considered that the plantation of trees suitable for the manufacture of matches would be remunerative.

C-6. No, not so far as is known.

10. D. (a) On the West Coast, carting is usually impossible during the monsoon months.

(b) During the dry season country carts are used.

11. E. The entire output of the nine established match factories does not exceed 268 gross per diem and so far as information is available, no difficulty is experienced in disposing of it. The quality and get up of the matches do not, generally speaking, approach the standard of the well known brands. The value of matches imported into the Madras Presidency during each of the last four years was as follows:—

Years.	Value in Rs.
1922-23	14,61,262
1923-24	12,87,970
1924-25	12,58,528
1925-26	12,88,476

Over a million gross of boxes are imported into the Madras Presidency annually, and of the 12·88 lakhs worth imported during 1925-26 Sweden supplies matches to the extent of 10·08 lakhs and Japan 1·57 lakhs. It will be observed that the imports of matches into the Madras Presidency have not materially decreased as a result of indigenous manufacture which has so far made little or no impression on the market. The match concerns so far established in Southern India, with the exception of the South Indian Match Factory at Tenmalai in the Travancore State and the Malabar Match Manufacturing Company (Managing Agents Messrs. Peirce Leslie and Company) at Alwaye in the State of Cochin, are comparatively small enterprises, whose production appears to commend a purely local market.

12. F. The prospects of the match industry in this Presidency have been referred to in the answers to the various questions. They cannot be considered very hopeful since it will probably always be difficult to obtain supplies of suitable wood at a price which will render commercial manufacture possible in view of the fact that such woods are found scattered in mixed forest intermingled with more valuable timbers. It is difficult to extract even valuable timber at a remunerative cost. In the case of the match wood cheapness is the all important factor and unless the timber is concentrated the cost of felling, logging, dragging and sawing into convenient sizes for match making will generally render the price prohibitive. In fact the conditions in the Madras Presidency appear to find a close parallel in the Philippines and in view of its applicability to Madras we venture to quote

the following extract from pamphlet No. 24 of the United States Department of Commerce, Trade Promotion Series.

" An economic exploitation of the Philippine match woods is very doubtful. No doubt sufficient match woods are available in the Philippines for a factory of fair size, but because of their distribution, economic exploitation is not practical. Match woods are abundant but are very widely distributed. They are not obtainable in large quantities at any one place for economic handling. The native woods so far used by the local match factory have not proven very satisfactory on account of their having coarser texture and more crooked grain than American match woods. Matches now made in the Philippines cannot compete with matches made in Japan or in the United States ".

APPENDIX B.

List of species reported to be suitable for veneers.

- | | |
|---------------------------------------|--------------------------------------|
| 1. <i>Ailanthus malabarica.</i> | 20. <i>Litsæa Polyantha.</i> |
| 2. <i>Alstonia scholaris.</i> | 21. <i>Lophopetalum Wightianum.</i> |
| 3. <i>Anthocephalus cadamba.</i> | 22. <i>Macaranga.</i> |
| 4. <i>Bombay insigne.</i> | 23. <i>Machilus macrantha.</i> |
| 5. <i>Bombax malabaricum.</i> | 24. <i>Mallotus Philippenis.</i> |
| 6. <i>Cratævia religiosa.</i> | 25. <i>Meliosma simplicifolis.</i> |
| 7. <i>Cullenia excelsa.</i> | 26. <i>Michelia Champaca.</i> |
| 8. <i>Dillenia pentagyna.</i> | 27. <i>Michelia Nilagirica.</i> |
| 9. <i>Dysoxylum beneceteriferum.</i> | 28. <i>Odina wodier.</i> |
| 10. <i>Elæocarpus agallocha.</i> | 29. <i>Premna latifolia.</i> |
| 11. <i>Exeocaria agallocha.</i> | 30. <i>Pterospermum acerifolium.</i> |
| 12. <i>Ficus Benjamina.</i> | 31. <i>Salix tetrasperma.</i> |
| 13. <i>Ficus cunia.</i> | 32. <i>Sterculia alata.</i> |
| 14. <i>Givotia rottleriformis.</i> | 33. <i>Sterculia urens.</i> |
| 15. <i>Gmelina arborea.</i> | 34. <i>Symplococos Spp.</i> |
| 16. <i>Holarrhena antidysentrica.</i> | 35. <i>Tetrameless nudiflora.</i> |
| 17. <i>Holoptelea integrifolia.</i> | 36. <i>Trema orientalis.</i> |
| 18. <i>Hymenodictum excelsum.</i> | 37. <i>Trewia nudiflora.</i> |
| 19. <i>Kydia calycina.</i> | |

(2) *Letter No. 1462-II—27-1, dated the 7th May 1927.*

In continuation of my letter No. 144-II.—27-2, dated 17th February 1927, I am directed to forward a statement containing particulars of certain other match factories in the Madras Presidency. Information regarding these concerns was not received in time to be incorporated in my previous letter.

Serial No.	Cost of production.	Sale price.	Approximate cost of machinery installed.	Extent of local demand.	Remarks offered by proprietor on probable results of a reduction in duty.
			Rs.		
1	Rs. 1-8-0 to Rs. 1-12-0 per gross	...	7,000	Sufficient local demand—provided sale price is cheap.	The lowering of the present rate of duty would crush the indigenous industry.
2	.....	...	...	.....
3	.....	...	...	.....
4	„ 1-10-0 per gross . . .	...	5,000	Good local demand, but for the competition of Swedish firms' matches.	If the duty is reduced, the concern would be greatly affected prejudicially; on the other hand, it is advisable to increase the present duty on imported matches and also that on imported foreign wood. (A duty should also be levied on foreign capital in Indian Match Companies.)
5	„ 1-8-0 „ . . .	Rs. 1-12-0 per gross.	4,000	No local demand, but matches sent to Coimbatore, Madura and Tinnevely for sale.	If the duty is reduced, the company would not get any profit.
6	„ 1-8-0 „ . . .	Rs. 1-10-0 to 1-12-0 per gross.	300	No local demand, but matches sent to Erode and Tirupatūr.	If the duty is reduced the industry would be prejudicially affected.
7	„ 1-6-0 to Rs. 1-7-0 per gross.	Es. 1-8-0 per gross.	...	Only wooden frames and polishers all constructed locally—good local demand.	If the duty is reduced, the concern will be affected, even vitally.

8	„ 1-6-0 per gross	Rs. 1-8-0 to Rs. 1-10-0.	10,000	No local demand, but matches exported to Southern Dis- tricts.	If the duty is reduced, the concern will have to be wound up.
9	„ 1-9-0 „	Rs. 2-0-0 .	...	.....	If the duty is reduced, the industry would be affected.
10	„ 1-8-0 „	„ 1-12-0 .	...	Local demand about 30 gross per week.	If the duty is reduced, the concern will have to be wound up.
11	Splints Rs. 2-8-0 per mannd Box-wood 2-8-0 for 50 gross .	„ 8-0-0 . „ 8-0-0 .	9,000	No local demand, but matches sent to Madras, Vellore, Tri- chinopoly, etc.	If the duty is reduced, the industry would be affected.
12	Rs. 1-8-0 per gross	„ 1-12-0 .	7,000	80 gross per month	If the duty is reduced, the industry would be affected.
13	„ 1-8-0 „	„ 1-12-0 .	5,000	100 do.	If the duty is reduced, the factory will have to be closed.

Serial No.	Name and locality of the Match Factory.	Size (output per day).	Approximate date of establishment.	EXTENT TO WHICH INDIGENOUS WOOD IS UTILIZED FOR			Supplies of wood whence obtained.	Labour and wages.		
				Splints.	Veneers.	Packing cases.				
1	The Indian Match Factory, Madura.	30 gross.	April 1923.	<i>Spondias magnifera</i> .	<i>Bombas malabaricum</i>.	...	Monthly consumption of wood about 20 candies.	Hand.	Obtained from neighbouring reserves and from forests near Shencottah. Supplies inadequate.	Available locally. Boys Rs. 3 to 6 per month; adults Rs. 12 to Rs. 20 per month.
2	The Agniswara Match Factory, Tirukalpalli (Tanjore District).	10 gross.	April 1925.	Supplies of wood obtained from Olavakat (Malabar District), <i>Bombas malabaricum</i> available locally, used in the beginning, but discontinued owing to its bad colour and cross grained character.			...	Do.	Supplies of wood obtained from Olavakat (Malabar District).	Available locally. Boys Rs. 5 per month; men Rs. 8 to 10 per month.
3	L. Jaganadham, Match Manufacturer, Masulipatam.	Manufactures pyrotechnic matches at present. (Formerly manufactured safety matches on a small scale from local woods, but abandoned as it did not pay).								
4	The South Indian Lucifer Match Works, Sivakasi.	30 gross.	4th February 1924.	Splints and veneers obtained from Palghat and Kanji Kode in Malabar.	Packing cases obtained second hand locally.	Daily requirements if of raw wood, 7½ c.ft., packing case 1.	Hand.	Local supply moderate.	35 labourers—average wage at Rs. 10 per month.	
5	The Salem Safety Match Factory, Salem.	15 gross.	August 1924.	Wood obtained from the Match Works, Malabar, Palghat.			...	...	.....	Boys Rs. 3 to Rs. 8 per month.
6	The Impregnated Match Works, Salem.	5 gross.	November 1925.	Wood obtained from C. A. Mani & Co., Trichur.			...	...	.....	5 to 6 persons—Rs. 5 to Rs. 8 per month.

7	The Sultana Match Factory, Elipur, near Manaparai, R. S. District Trichinopoly.	15 to 16 gross.	October 1925.	Splints and veneers obtained from Kanji Kode and Palghat; second hand deal-wood boxes obtained from local merchants.	...	...	Suitable wood cannot be obtained anywhere in the neighbourhood.	Cheap labour available. 18 to 30 boys 4 annas to 12 annas per day.
8	Malabar Match Works, Erode.	50 gross.	November 1926.	Wood got from Malabar Match Works, Palghat. <i>Bombax malabaricum</i> Amstali and Palsi for splints and veneers. Packing cases purchased locally.	...	Hand.	...	Rs. 1-8-0 to Rs. 3 per head per week. No employed 75.
9	K. B. Krishnaeswamy Chetty's Match Factory, Udumalpet.	5 gross.	April 1924.	Splints and veneers got from Calcutta.	..	Do.	.....	Rs. 150 a month.
10	Krishnaeswamy Naidu's Match Factory, Idugarai Thudiyalur, District, Coimbatore.	2 to 3 gross	April 1926.	Splints and veneers got from Palaniappa Chetty, Palghat and Mani & Co., Trichur.	...	Do.	.....	Rs. 3 to 4 per month.
11	Pushparaj Match Works, Kanji Kode, South Malabar.	200 gross box making material & 4 mannds of splints.	July 1926.	<i>Bombax Malabaricum</i> got locally.	...	Steam power.	.....	3 annas to 8 annas per head per day.
12	Squirrel Match Factory, Vaniyambadi.	5 gross per day.	March 1923.	Splints and veneers got from Palghat.	...	Hand power.	.....	Rs. 2 per day for 4 to 5 coolies.
13	Swan Match Factory, Devasthanam Vaniyambadi.	20 gross per day.	September 1925.	Ditto.	...	Do.	...	Rs. 5 per day for 10 to 12 coolies.

Government of the Central Provinces.

(1) Letter, dated the 19th February 1927.

With reference to your letter No. 58, dated the 7th January 1927, on the subject of the condition and prospects of the match-making industry in the Central Provinces and Berar I am directed to communicate the following information on the various points raised therein:—

A. (1) The woods in use at present for the manufacture of splint, veneers and packing cases are:—

- (i) *Semal (Bombax malabaricum)* used for splints, veneers, for making boxes both inner and outer and for packing cases. This is the most suitable of local woods for matches.
- (ii) *Salai (Boswellia serrata)* largely used for packing cases and to a smaller extent for splints. Veneers of *salai* are also used for making inner cases of match boxes.
- (iii) *Pulla (Kydia calycina)* used for packing case.
- (iv) *Gunja (Odina wodier)* used for making inner cases only.

(2) Woods Nos. (ii), (iii) and (iv) are obtainable in sufficient quantities from Government forests and malguzari and zamindari areas and from Feudatory States, but the supply of *semal* is very limited in all the forests and particularly those adjoining the sites of factories working at present. It has to be imported from distant places, entailing heavy transport charges. In one case, *viz.*, the Laxmi Art Match Factory, Bilaspur, all the woods are obtained from Jamgaon in the Raigarh State of the Central Provinces on the Bengal Nagpur Railway where the factory has taken a forest lease. In another case, *viz.*, the Amrit Match Factory, Kota, *semal* is obtained from the Balaghat and Bilaspur Forest Divisions, Kendra Zamindari and Rewah State, while *salai* is obtained from the local forests. In the third case, *viz.*, the Housa Match Factory, Kota, *semal* is obtained from the Pandaria State (42 miles from Kota), and from the Kendra zamindari (5 miles from Kota) and a small quantity from the Government forests, while *salai* and *pulla* are procured from local malguzari forests.

(3) Fuel is sufficient. The waste wood of the splints, veneers and packing cases is utilised as fuel. In one case a kerosene oil engine of 5 horse power is worked, the cost of oil consumed being Rs. 72 per mensem and in two other cases coal is used for the boiler, the cost of coal being Rs. 300 and Rs. 500 per mensem respectively.

(4) There is an abundant supply of labour, the wages averaging as follows:—

- Men (skilled) Re. 0-12-0 to Rs. 1-8-0 per day.
- Men (unskilled) Re. 0-5-0 to Re. 0-6-0 per day.
- Women (skilled) Re. 0-6-0 to Re. 0-12-0 per day.
- Women (unskilled) Re. 0-3-0 to Re. 0-4-0 per day.
- Children Re. 0-3-0 to Re. 0-3-6 per day.

B. (1) No investigation as regards sites has been made in this province.

(2) There are three factories. Two are located at Kota, railway station Kargi Road in the Bilaspur district on the Katni-Bilaspur branch of the Bengal Nagpur Railway and one is in Bilaspur town. The names of the factories are as follows:—

- The Amrit Match Factory, Kota.
 - The Housa Match Factory, Kota.
 - The Laxmi Art Match Works, Bilaspur.
- } Bilaspur district.

All these factories are owned, controlled and financed by Indians. The Amrit Match Factory, the capital of which is Rs. 1,00,000 is the biggest of its

kind in the province and one of the oldest in India, having been established in 1897. The following machines are used:—

- 5 peeling machines, 2 chopping machines, 12 frame filling machines, 1 dipping machine, 6 outer case making machines and 6 inner case making machines. Power is supplied by a steam engine. The packing of match sticks in the boxes is done by manual labour by women. There are 400 employees in this factory.

The Housa Match Factory which was opened in 1926 with a capital of Rs. 60,000 is a small concern and appears to be badly organised. The following machines are used.

- 2 peeling machines, 3 splint chopping machines, 3 frame filling machines, 1 dipping machine, 3 outer case making machines and 1 inner case making machine. Power is supplied from a steam engine of locomotive type. Inner cases are also made by local women at their homes at the rate of 2 gross per woman per day and they are paid at the rate of one anna per gross, the material being supplied by the factory. The factory employs 60 hands.

The Laxmi Art Match Works which was opened in October 1925, with a capital of Rs. 20,000 is a small factory in which machine production plays a small part. The following machines are used:—

- 1 peeling machine, 1 dipping machine, 1 frame filling machine, 1 chopping machine, 1 outer case making machine, 1 inner case making machine and 2 grinding machines for composition. Power is supplied from a 5 horse power kerosine oil engine. This factory employs 50 hands.

(3) The wood used in the factories is wholly indigenous.

(4) No.

(5) The following five factories which were established in the province have been closed:—

The Ellichpur Match Factory, Ellichpur, Amraoti District, Berar.

The Laxmi Match Factory, Tumsar, Bhandra District.

The Saraswati Match Factory, Balaghat.

The Oriental Match Factory, Wardha.

The Kiran Match Factory, Sehora, Narshinghpur District.

The Ellichpur Match Factory was closed down during the war, partly because it could not import splints and chemicals from Germany as it used to do before the war and partly because it did not work throughout the year.

The Luxmi Match Factory was started with a capital of about Rs. 3,000 and worked with three small hand machines. The main cause of failure was lack of sufficient capital, and the following were contributory factors:—

(1) The factory used to obtain wood from a long distance instead of from the Government forests close by for which heavy transport charges were incurred.

(2) The wood thus obtained could not be used early and most of it was rendered useless in the rains.

(3) The lower wages paid in the beginning had to be raised to the level prevailing in *bidi* factories in the locality.

The cost of production, therefore, equalled if not exceeded the prices ruling in the market, hardly leaving any margin of profit.

The Saraswati Match Factory was making matches by hand. It used to import splints, veneers and packing cases from Calcutta. The main cause of failure was financial losses brought about by the necessity of importing

splints, etc., The owner states that if he had been in a position to purchase machinery, which would have cost about Rs. 6,000 he could have made matches from wood produced in the district.

The Oriental Match Factory used to make matches entirely by hand without any machinery on the lines of cottage industries, which resulted in the cost of production being nearly equal to the selling price in the market. The factory could not therefore hold its own against foreign matches.

No recent information is available regarding the causes of failure of the Kiran Match Factory. But from previous reports it appears that this factory produced only 6 gross per day by hand dipping and that it could not compete with imported matches, partly because it used to import splints and veneers and partly because the plant which it had purchased was not in working order from the very beginning.

(6) No.

C. (1) No special arrangements are made. If desired permits to extract wood can be taken from day to day as is done by one factory.

(2) The royalty levied on one cart load of wood taken from Government forests is Re. 0-8-0 though a concession rate of Re. 0-4-0 is also allowed. The rates of royalty on wood obtained from the neighbouring states and local malguzari and zamindari forests vary from annas 8 to Re. 1-4-0 per cart, the States charging higher rates of annas 12, 13 and Rs. 1-4-0 per cart.

(3) No general concessions have been granted. But the Amrit Match Factory obtains wood from the Balaghat and Bilaspur forest divisions at concession rates.

(4) No restrictions have been imposed.

(5) No, and no such plantation is at present under contemplation.

(6) No.

D. (a) During the monsoon it is impossible to get any wood as there are no metalled roads in the interior of the forests and the wood has therefore to be stacked in the factories before the setting in of the monsoon.

(b) No special difficulties are experienced during the dry season. In the case of *semal*, the local supply of which is limited and has in consequence to be brought from long distances by rail and road, the cost of transport is considerable. On the whole the cost of transport by cart and rail, together with supervision charges, comes to about a rupee per cubic foot. The factories, however, do not have a single source of supply, and the cost of transport of individual factories must therefore vary according to distances. For instance, the Amrit Match Factory at Kota has to obtain *semal* from the Balaghat forest division, which is its furthest source of supply. The railway freight for one wagon load of wood (20 carts) costs the factory Rs. 96-4-0 and in addition the carting expenses from the forest to the railway station (about 10 miles) come to annas 10 per cart or Rs. 12-8-0 per wagon. The cost of transport only in this case works out at annas 10 per cubic foot. This factory's nearest source of supply is the Bilaspur forest division. In this case the cost of transport by road from the forest to the factory, 40 miles, comes to Rs. 10 per cart.

The Laxmi Art Match Works at Bilaspur obtains all its supply of wood from Jangaon in the Raigarh State of the Central Provinces. In this case the cost from the forest to Jangaon railway station is Rs. 1-8-0 per cart and that from Bilaspur railway station to the factory 3 annas per cart, while the railway freight from Jangaon to Bilaspur is Rs. 35-4-0 per wagon (25 carts).

The House Match Factory at Kota does not incur any expenses on account of transport of wood by rail, all its supplies being obtained by road from the neighbouring forests. Its furthest source of supply is Pandaria State which is 43 miles from Kota. The carting expenses come to Rs. 9-8-0 per cart from the forest to the factory.

E. The consumption of output is largely outside the province. The Amrit Match Factory's output is consumed as follows:—

Central Provinces 40 per cent.

United Provinces 30 per cent.

Bihar and Orissa 30 per cent.

The Housa Match Factory sells about 50 per cent. of the output locally, the other half being exported to the United Provinces.

The Laxmi Art Match Works sells locally 12 per cent. of the output and 88 per cent. in the other districts of the Central Provinces and the neighbouring districts of Bihar and Orissa.

F. Excepting the Amrit Match Factory, which is one of the oldest established factories in India, the other factories are new. The full capacity of the Amrit Match Factory is 1,200 gross per day, but owing to excessive competition the average output is 400 gross per day. The average daily output of the Housa Match Factory is 50 gross and that of the Laxmi Art Match Works 100 gross.

2. As regards paragraph 4 of your letter under reply, I am to suggest that, should the Board desire to inspect some of the factories in this province, the most suitable place would be Kota in the Bilaspur district on the Bengal Nagpur Railway.

(2) Letter, dated the 9th March 1927.

In continuation of this Government's letter No. 622—50—XIII, dated the 19th February 1927, I am directed to enclose for the information of the Tariff Board, the accompanying extracts from a report of the Chief Conservator of Forests, Central Provinces, furnishing certain additional information on the subject and to say that this could not be incorporated in the previous letter cited above as the report was not received in time.

Extract copy of letter No. C.-146-P.-265, dated Pachmarhi, the 15th February 1927, from Chief Conservator of Forests, Central Provinces, to the Revenue Secretary to Government, Central Provinces, Nagpur.

B-1. As Troup points out in his book (Chapter X) success in the Central Provinces largely depends on the suitability of Salai wood. The following still seem very suitable.

South Chanda Division.—As Rajamundry is in Madras but getting its supplies from South Chanda Division by floating on the Godavery.

Ramtek (or near by).—Large and easy supplies of Salai fuel, etc., from Pench Ranges and Seoni district: large tanks near by: labour rates probably somewhat above the ordinary.

South Raipur.—On the forest tramway near Mohdi or the Mahanadi: Salai and fuel cheap, labour cheap.

Nimar.—On the railway anywhere between Khandwa and Burhanpur: Salai and fuel cheap and easy: labour plentiful but only fairly cheap.

Mandla.—Salai, fuel and labour probably plentiful and cheap. The above sites would seem to be first for consideration in the Central Provinces. The others suggested by Troup namely, Ghatara (Damoh), Bagra (Hoshangabad), Gangajhiri (Bhandara), Shahpur (Betul) are all on the railway, very close to the sources of supply and with cheap labour: they are only second to those

mentioned above. Others of an exactly similar suitability and hitherto not mentioned are:—

Mahasamund.—In Raipur or near the Mahanadi.

Balaghat.—Any station between Nainpur and Balaghat.

Nimar.—If the Khandwa-Akola railway is built then near the Tapti crossing.

* * * *

C-5. No. The subject of plantations of *Bombax malabaricum* has recently been considered but no decision has been reached.

* * * *

D (c). All the sites in B-1 have been selected as on the railway and for proximity to the sources of supply of Salai, fuel, etc., Rates for these could hardly be cheaper anywhere than they would be at these sites.

* * * *

2. The whole question of match factories in the Central Provinces appears to hinge on the suitability of *Boswellia serrata* (Salai). If it is unsuitable then it would be a waste of time for the board to tour in the Central Provinces. If suitable, then the possibilities from the point of view of cheap raw material, cheap labour and sites on the railway would appear to be rosy and the following tour could be made.

Raipur.—Visit by motor the match factory at Kotah, Bilaspur, Mahasamund, and the forest tramway site.

Balaghat.

Mandla.

Nagpur.

} To Ramtek and Pench forests by motor; also Nagbhir.

Hoshangabad and Chanda.—Motor to Shahpur and Bagra (open season only).

Khandwa.—By this tour all the suggested sites could be visited except Ghatara and Gangajhari neither of which is likely to be very important. Rajamundry could not be visited from the Central Provinces but is easily accessible from Waltair.

Government of Bihar and Orissa.

Letter, dated 21st February, 1927.

I am directed to acknowledge the receipt of your letter No. 53, dated the 8th January and to forward for the information of the Board a copy of the letters noted on the margin together with a copy of a Bulletin* prepared on behalf of the provincial department of Industries by Mr. A. P. Ghose comprising his report on investigations which

1. Letter No. C-274, dated the 25th January 1927, from the Conservator of Forests.

2. Letter No. 473, dated the 12th January 1927, from the Director of Industries.

3. Letter No. 1974, dated the 7th February 1927, from the Director of Industries.

he made in 1924 into the possibilities of the Match industry in this province.

2. The Conservator of Forests (Mr. A. J. Gibson) states that he had particular experience of the problems of the match industry when serving in the Punjab, and the reply given in his letter No. C-274, dated the 25th January 1927 is in general terms. The Director of Industries' letter No. 473, dated the 12th January, is in reply to the Press Communiqué issued by the Tariff Board on the 29th November 1926. In his second letter No. 1974, dated the 7th February the Director of Industries replies briefly to your Questionnaire. I am to request that the opinions expressed both by Mr. Gibson and by Mr. Gupta may be read as the personal opinions of those two officers.

3. If the Board decides to inspect any of the match factories in this province (including the Government Demonstration Match Factory at Patna)

* Not printed.

or any possibly suitable sites for factories, the Local Government will be pleased to arrange a tour programme, on learning of the probable dates of the Board's visit and the length of time that it could spend in the province.

Enclosure No. 1.

Copy of letter No. C-274, dated the 25th January 1927, from the Conservator of Forests, Bihar and Orissa, to the Secretary to the Government of Bihar and Orissa, Revenue Department.

SUBJECT: The Indian Match Industry.

I have the honour to acknowledge receipt of your memo. No. 223-Com.—11-C—27, dated the 21st January 1927, asking for information required for communication to the Tariff Board on the subject of the match industry in Bihar and Orissa.

2. Before discussing the conditions prevailing in Bihar and Orissa, I have some general remarks to make.

In paragraph 2 of letter No. 58, dated the 8th January, 1927, from the Tariff Board, to the Chief Secretary to the Government of Bihar and Orissa, which formed an enclosure to your memo. No. 223-Com.—11-C.—27, dated the 21st January 1927, reference is made to Professor (then Mr.) R. S. Troup's memorandum of 1909 on the match industry in India. That was a most unfortunate publication, prematurely issued mainly on information supplied by a German firm making match machinery. In confirmation I would draw your attention to paragraph 64, second sub-paragraph of the report of the Indian Industrial Commission, 1916-18, published by the Superintendent, Government Printing, India, Calcutta, in 1918.

In 1920 I was deputed by the Punjab Government to investigate the match industry in Sweden. I failed to get access to any match factory in that country but I learnt a good deal about the strangle hold Sweden then had and were still getting over the match industry of the world. On coming back to the Punjab I got reputable Indian and British firms interested in the subject of the match industry in the Punjab where the question of the supplies of suitable timber was specially favourable, but for reasons best known to themselves the Punjab Government squashed the negotiations. The opportunity was lost, and now every match factory of any importance in India is controlled by the Swedish match combine. This fact has, in my opinion, a very pertinent bearing on the subject of continuing protection to the match industry in India.

3. As regards the match industry in Bihar and Orissa, reference is invited to the comprehensive though possibly rather superficial report of Mr. A. P. Ghose, published by the Department of Industries in this province in 1924. This report practically covers the whole of the Questionnaire of the Tariff Board and unless Government wishes me to review the information given by Mr. Ghose's report I do not propose to go into the matter in detail. Besides much of the information required by the Tariff Board can only be supplied by the Director of Industries in this Province.

4. As regards timbers suitable for match making in Bihar and Orissa my own opinion is that the Province is badly situated in this respect. There are suitable species but they occur scattered over large areas, mixed with other miscellaneous forest trees, generally remote from lines of transport. Owing to the conditions under which the trees have grown the timber is often crooked and not very suitable for the 'bolts' required for the match veneer cutting machines. Consequently wastage is high which re-acts adversely on costs.

5. The remedy lies in starting plantations of trees suitable for match making. A start has been made in the Kolhan Forest Division at Posoita where 60 acres of inferior sal forest were cleared early in 1926 and partly planted up with suitable species from a nursery established at Goilker. This

area is being further extended by 400 acres this season. The plantation is admirably situated on the main line of the Bengal Nagpur Railway (Railway station Posoita) and it is hoped will be able to feed any match factories in the Singhbhum district if the latter are situated at railhead. Another plantation has been started at Berbera, Puri Forest Division, near Balugaon railway station which will be able to feed match factories at Cuttack or Puri.

6. No trees have been sold by the Forest Department, Bihar and Orissa, direct to match making companies. The Bettiah Raj forests have supplied the Gulzarbagh Government factory with some match woods.

7. The Questionnaire of the Tariff Board covers a large field at present largely in the realm of theory as regards Bihar and Orissa, and if further details are required, I suggest that I may be called as a witness before the Board when they come and inspect the existing match factories in the province.

Enclosure No. 2.

Copy of letter No. 473, dated the 12th January 1927, from the Director of Industries, Bihar and Orissa, to the Secretary, Tariff Board.

With reference to your Press communiqué dated the 29th November 1926, I have the honour to submit my views on the subject as hereunder:—

- (a) The match industry of this province as represented by the Government Demonstration Match Factory at Gulzarbagh, Patna, fulfils all the conditions laid down in paragraph 97 of the Indian Fiscal Commission and is, therefore, entitled to Tariff protection against foreign competition or competition by matches made in this country partly or wholly with foreign wood.
- (b) I am of opinion that in addition to maintaining or even increasing if deemed necessary, the present rates of import duty on finished matches, veneers and splints a suitable duty should be levied on all timber imported for the manufacture of matches, splints and veneers in this country.
- (c) All papers, chemicals, machineries and spare parts thereof required for the match industry should be allowed to enter the country entirely duty free.
- (d) Royalty on all match wood from the Government Forest should be reduced to as low a figure as possible.
- (e) Special freight concession and transport facilities should be afforded to the industry in order to enable it to avail itself of suitable match wood grown anywhere in this country.
- (f) Forest Departments both Imperial and Provincial should be instructed to put down extensive plantations of suitable match wood without further delay. My information is that there are some varieties of match wood which grow fast enough to be ready for felling within 5 to 7 years.
- (g) Government to make an investigation into the working of various trusts and combines which have established match factories in this country in order to determine how far they are resorting to unfair means of competition against the smaller factories and thereby establish monopolies to the detriment of the purely indigenous enterprise. Enactment of anti-trust laws in order to check and control the operation of combines and trusts interested in the match industry in this country should be undertaken if it were found that they were inimical to the best interests of the indigenous industry. By indigenous is meant those factories which work entirely with wood grown in the country and not imported wood, splints, veneers, etc.

Enclosure No. 3.

Copy of letter No. 1974, dated the 7th February 1927, from the Director of Industries, Bihar and Orissa, to the Secretary to the Government of Bihar and Orissa, Revenue Department, Patna.

SUBJECT:—Protection to the Match Industry in India.

With reference to the Government memo. No. 222-Com.—C.11-C-27, dated the 21st January 1927, forwarding a copy of letter No. 58, dated the 8th idem, from the Secretary, Tariff Board, on the above subject, I have the honour to submit the following information:—

2. When Mr. R. S. Troup, Imperial Forest Economist to the Government of India, wrote his memorandum entitled "The Prospects of the Match Industry in the Indian Empire with particulars of proposed Match Factory Sites and wood suitable for Match Manufacture," which was published in 1909, the province of Bihar and Orissa formed a part of Bengal and there was no special mention of it in the memorandum. At the instance of the Government of Bihar and Orissa, however, one Mr. A. P. Ghose, Match Expert, was engaged to investigate into the possibilities of the match industry in this province and his report entitled "Report on the Investigations into the possibilities of match industry in Bihar and Orissa." was published in 1924, a copy of which is enclosed* for reference. It may be noted that as a result of this report, the Government have established a match factory at Gulzarbagh which commenced work in April, 1926.

3. A-1. For supplies of match wood, Chapter V at pages 38-43 of Mr. Ghose's report may be referred to. Of the woods mentioned in Mr. Ghose's report, the three species, viz., *Trewia Nudiflora*, *Bombax Malabaricum* and *Odina Wodier* have been found to be particularly suitable.

A-2. With proper organisation and whole hearted co-operation of all concerned, it should be possible to obtain all the requirements of wood from a single source.

A-3. The best fuel is coal, which is plentiful in this province and can be had at a reasonable price almost anywhere in the province.

A-4. There is no dearth of labour, skilled or unskilled. Skilled labour can be had from annas twelve to rupees two per day depending on the degree of skill. Unskilled labour can be had from annas four to annas eight per day.

B-1. The sites mentioned in Chapter VI of Mr. Ghose's report are all more or less suitable.

B-2. (a) Government Demonstration Match Factory, Gulzarbagh, was started in January 1926. Its capacity is 100 gross matches ($\frac{3}{4}$ size) per day.

(b) Orissa Match Works, Cuttack, was started in June 1925. Its capacity is 50 gross (full size) matches per day, which ought to be about 70 gross a day with half size.

(c) Puri Match Industries Company, Puri. It was started in 1922 with a capacity of 15—20 gross a day and has since increased its output. The Company have also applied for additional machines under the Bihar and Orissa State Aid to Industries Act to be installed with a view to further increase production to 50 gross per day.

B-3. All these factories use indigenous woods for splints and veneers and packing cases.

B-4. Mr. Troup did not mention any place in Bihar and Orissa, in his memorandum.

B-5. About the war-time the undermentioned factories were started:—

1. Santosh Match Factory, Purulia.
2. Laxmi Match Works, Cuttack.
3. Sas Match Factory, Ghatsila.

* Not printed.

4. Sun Match Works, Ranchi.
5. Keraikeela Match Factory, Chakradharpur.
6. Banpur Match Factory in Puri.
7. Match Factory at Arrah.
8. Baldeo Match Factory, Kendrapara.
9. Swadeshi Match Factory, Muzaffarpur.
10. Rajmahal Match Factory.
11. Leo Match Factory, Rajgangpur.
12. Jenapur Match Factory in Cuttack.
13. Sahu Match Factory, Motihari.

All of them have either been closed or are in a precarious condition due to one or more of the following reasons:—

- (a) insufficient capital outlay;
- (b) under estimate;
- (c) wrong selection of match machines and system of work;
- (d) wrong choice of factory sites;
- (e) want of proper technical help;
- (f) difficulty of obtaining proper wood for matches;
- (g) incompetent management; and
- (h) inability to compete with foreign matches or superior matches made in the country with imported wood, veneers, splints, etc.

B-6. None of the factories are owned, controlled or managed by foreign capitalists.

C. 1-4. No information on these points is available in this office.

C-5. The Forest Department appears to be very keen about the plantation of match wood but no definite information is available in this office as regards their future policy and the scope and extent of their present operation in this direction.

C-6. No companies or firms undertaking the manufacture of matches have planted suitable trees anywhere in the province.

D. Rail transportation would appear to be prohibitive unless special concessional rates are granted. Floating down the river after the monsoon to factory sites from the interior is the cheapest if not by far the most satisfactory method of transport. The actual cost of this method of transport is, however, not known as the Bettiah Raj supplied the wood at annas ten per c. ft. delivered at Gulzarbagh Match Factory.

E. At page 58 of his report, Mr. Ghose says that the province requires in a round figure about 1,200,000 gross of boxes of matches per year, and in order to be self-contained it needs 40 factories with 100 gross production per day with 300 working days in the year. It is, therefore, evident that the existing factories can very easily dispose of their production in the local markets provided they are able to compete with matches made in Bombay and Calcutta from foreign woods and in fact the matches are seldom sent out of the province.

F. Match industry in the province has only recently been commenced. Its pros and cons have been fully examined at the Government Demonstration Match Factory, Gulzarbagh, and it is sure to prosper and develop with the concessions referred to in my letter No. 473, dated the 12th January, 1927 submitted to Government in the Education Department for transmission to the Secretary, Tariff Board.

4. I shall arrange for a tour programme of the Tariff Board, and inspection of factories by them on receipt of sufficient notice to this effect.

Government of Bengal.

Letter, dated the 23rd February 1927.

I am directed to refer to your letter No. 58, dated the 7th January 1927; in which the Tariff Board asked for certain information regarding the condition and prospects of match making industry in Bengal.

2. In reply I am to say that an enquiry was made in 1922 by Mr. A. P. Ghosh, Match Manufacturing Expert, at the instance of the Government of Bengal, into the possibilities of match industry in this province and I am to forward herewith a copy of the report* submitted by him which contains much of the information asked for in your letter under reference. I am also to enclose herewith copy of a letter from the Conservator of Forests, Bengal, No. 1473-1-T.-27, dated the 20th March 1925, as well as an extract of this department letter to the address of the Director of Industries, Bengal, No. 5461, dated the 11th November 1925, embodying the considered views of this Government on the several recommendations made in Mr. Ghosh's report. As explained in this department letter referred to, the Government of Bengal came to the conclusion that there were possibilities for the encouragement of the match industry, especially as a home industry, in this province, and the Director of Industries, Bengal, was accordingly asked to examine the matter from this point of view. The matter is still under investigation by him and his report is being awaited.

3. I am also to forward herewith a statement giving detailed information as far as available on the various points referred to in paragraph 5 of your letter under reply.

4. As regards the proposal made in paragraph 4 of your letter, I am to say that the (1) Calcutta Match Works, Garden Reach, (2) Western India Match Company's factory, Canal East Road, (3) Esavi India Match Manufactory, Muraripuker Road, (4) Pioneer Match Factory, Dum Dum and (5) M. N. Mehta Match Factory, Ultadinghi, are good examples of the different types of factories for the purpose of inspection. It is however understood that the Director of Industries, Bengal, is already in communication with you in this matter and is arranging for necessary facilities being given for inspection of some of the factories by the Tariff Board. As regards the inspection of sites for factories, I am to suggest that, if the Board find it necessary, after perusal of Mr. Ghosh's report, to inspect likely sites in the forests, the sites selected for such inspection and the proposed dates may be communicated direct to the Conservator of Forests, Bengal, who will then arrange the necessary tour programme for the purpose.

Enclosure No. I.

No. 1473-I. T.-27, dated Darjeeling, the 20th March 1925, from N. C. Milward, Esq., Conservator of Forests, Bengal, to the Secretary to the Government of Bengal, Revenue Department.

In reply to your No. 1740-For., dated the 21st February 1924, I have the honour to say that I consider the report to be both interesting and informative but much too optimistic in regard to the supplies of timber available for the match industry.

2. From figures given in the report (page 44 (a) and (d)) it seems that 34 cubic feet of timber are needed for 100 gross of splints and 40 cubic feet for 100 gross including boxes. Working on these figures and those of pages 38-41 and comparing them with the figures of outturn in Form No. 19 of the Bengal Forest Annual Report for 1922-23 the requirements for the

* Not printed.

match industry exclusive of waste as compared with the outturn of timber and fuel from all sources during that year are as follows:—

Forest Division.	Requirements not allowing for waste. (c. ft.)	Total outturn in 1922-23. (c.ft.)
Darjeeling	1,366,800	1,183,000
Kurseong	372,600	741,000
Kalimpong	617,400	1,687,000
Sunderbans	2,916,000	9,940,000
Jalpaiguri	122,400	2,508,000
Buxa	387,600	3,400,000
Chittagong Hill Tracts	510,000	810,000
Cox's Bazar	60,000	1,042,000
Chittagong	204,000	1,166,000
TOTAL	6,556,800	22,477,000

Of the 2,247,700 cubic feet 13,070,000 were fuel and 9,407,000 timber. In Darjeeling Division, for instance, fuel amounted to 1,007,000 and only 176,000 cubic feet were timber. Since nearly the whole of the supply from the accessible forests in this Division is required for Darjeeling and the tea gardens which have for long depended upon it, it is unlikely that the match industry will obtain what it wants in the accessible areas near Darjeeling and Ghoom. If coal replaces wood fuel in the hills there will be more splint wood available but it is doubtful whether it will do so. On the other hand there are some of the less accessible areas in and beyond Manebhanjan in the Singalila range which may be opened up but clear felling can only be done if the forest can be artificially restocked. The gist of all this is that anyone who wishes to start a splint or complete match factory in the Darjeeling Division can draw useful information from this report or the local forest staff but he cannot expect to displace other industries of long standing and must be ready to make a detailed examination of all the conditions.

3. The Forest Department has no accurate figures of the available crop. This is a great drawback which has been mentioned before but it must be understood that the enumeration of match timbers would be a large and expensive undertaking. The species said to be suitable are many and I know of no reason to doubt the accuracy of this part of the report, which is after all a specialist's work. The species named by the match expert include some suitable for timber but most of them are only used for fuel.

4. The forests of the province are being worked now so as to make the largest possible amount of material available for industry of all kinds from accessible areas, consistent with their restocking with species suited by the climate and locality. Many people seem to be ignorant of the fact that trees cannot be forced to grow in climates and localities which are unsuitable to them. Mr. Ghose has mentioned some of the localities which are being less heavily worked either on account of inaccessibility or because there is

less local demand. In the former category may be mentioned the north-east and higher part of the Kalimpong Division and the north-east of the Kurseong Division, and in the latter a good deal of the Buxa Division (for kukat species, now that the Buxa Timber and Trading Company has gone into liquidation) and much of the forests of the Chittagong Hill Tracts. Most of the other forests are heavily worked for woods which are suitable for the match industry and among them the Sundarbans must be included. In the latter although genwa is already being largely used for matches it is being obtained each year with more difficulty as there is no regulation in its cutting. Paragraph 60 of the 1922-23 Annual Report gives figures of the output of timber in the circle.

5. Provided that the demands of those interested in the industry are reasonable, the help which Mr. Ghose hopes for from the Forest Department at the bottom of page 51 of his report will be forthcoming but funds will be needed for opening up inaccessible areas and replanting areas cut over. Special royalty rates do not appear to be necessary to a well-protected industry—the figures on pages 44-45 corroborate this—nor can such be hoped for if money has to be found by Government for the further development of the forests.

Attached are the opinions of two Divisional Officers (Darjeeling and Kurseong).

Opinion of E. A. C. Madder, Esq., Deputy Conservator of Forests, Darjeeling Division.

The writer of this bulletin has unfortunately ignored the fact that there is a heavy local demand for all classes of forest produce in some of the forests visited by him. For example, I fail to see the object of including certain portions of Darjeeling Division, such as Ghumpahar Range, where we cannot meet the existing local demand or of suggesting a splint factory at Sonada when every stick in Senchal 4 is required for the firewood and timber supply of Darjeeling.

2. There are, however, certain areas where timber for making matches is available, but it will be advisable for those interested to first consult the Forest Department as to the quantity of timber that can be spared for matches, after meeting local demand.

3. On page 54 it is stated that there is an abundance of match wood in the Bengal Forests and that a different forest policy is needed to remove all doubts and difficulties in the way of supplying match woods.

Mr. Ghose has conveniently closed his eyes to the fact that a very large number of species mentioned by him are used locally and often in very large quantities.

As regards a change of policy does he suggest that the local inhabitants and local industries should be deprived of the fuel and timber they have been accustomed to purchase from the forests for years and that all timber suitable for matches be reserved for this purpose regardless of local requirements?

4. I do not think any change of policy is needed by the Forest Department: what is wanted is that those interested in the match industry must realise that the requirements of the local inhabitants and local industries must come first. Had this been realised and had those interested in the industry been prepared to work in areas where produce is available, instead of persistently and deliberately trying to plant themselves in forests where the existing local demand exceed the supply, matters would have progressed at least a little by this.

5. On page 30, Mr. Ghose states that most of the species suitable for matches come under the category "Kukat * * * * * Kukat, he says, is used as fuel and some Kukat has even no fuel value.

Again on page 17, it is stated "Specimens that have much timber value * * * have not been included in this report."

A glance at the results of the timber tests given on pages 18 to 23 will show that the above two statements are misleading and inaccurate. Some of the species mentioned are valuable timber trees, *e.g.*, Gamhari, Lampati, Kawla, Lepcha Kawla and the Sundarbans Pussar. Speaking generally, there is a fairly good demand for at least 25 of the 99 species mentioned for timber. Samples of 16 specimens from Darjeeling Division have been tested (see pages 23 to 25). Eleven of these 16 are sold as timber at present in accessible areas. I am inclined to think that the percentage is nearly as high in a few other divisions.

6. The terms "good supply," "fair supply" and "small supply" used on pages 32 to 37, when estimating the approximate quantity of timber of each species available, must not be taken too seriously; in fact, they are often misleading. For example, under "good supply" we find—

- (1) Hemlock (Thingre Salla) extending over a few hundred acres in the Darjeeling Division.
- (2) Chipit extending over many hundred of miles in the Chittagong Hill Tracts.
- (3) Geneva which is not uncommon over 3,000 square miles in the Sundarbans Division.

7. On page 54, it is suggested that the Forest Department should reduce royalty rates for timber for matches. On page 45 Mr. Ghose estimates that after paying 3 annas royalty plus 6 annas felling and carriage—9 annas, a very fair rate, there will be a minimum profit of Re. 1 per gross of matches. On page 44 it is stated that 1 cubic feet will produce matches for about 3 gross boxes. Six cubic feet will yield about 100 gross cases.

Our royalty rates for the class of timber required are, on the whole, not high, and unless the produce is to be given as a gift, I fail to see why there should be a reduction except in special cases.

My No. 254—17-26, dated the 2nd October 1923, on Mr. Sailendra Nath Mitra's application may be of use in working out the royalty rates that should be charged in this division at least.

8. As regards setting aside special areas for match-making and planting suitable species, there should be no trouble or objection provided local industries and the local demand is adequately safeguarded.

Opinion of W. E. Hodge, Esq., Deputy Conservator of Forests, Kurseong Division.

Page 9.—Splint factories.—All produce in accessible places is sold to tea gardens for box planking or fuel. Small parts of tops, etc., are cut into fuel.

Water-supply.—It is doubtful if the water-supply is sufficient at Sukna or Latpanchar. This difficulty could be obviated by installing oil engines.

Floating.—It is very doubtful if floating is feasible in the Teesta.

Labour supply.—I think that Mr. Ghose does not fully appreciate the difficulty of getting labour at Sukna or Sevoke. In the former place there is a fair supply of hill labour which comes down from Tindharia, etc., and goes back at night.

This form of labour is very expensive not only from the point of view of short working hours, but owing to competition with the tea gardens, who can afford to pay very high rates during the plucking season.

In the latter place there is no local labour available and hill coolies for the cold weather months only can be obtained.

In the hills labour for Latpanchar and Mana will also be difficult. It will probably be necessary to open out villages within the forest to provide

labour if anything on a large scale is to be done. Labour will be needed for the extraction as well as the splint making.

Timber supply.—At Toong and Sukna and also in the Bagdogra Range practically all timber is sold to tea estates as box planking or fuel: it hardly seems possible to take produce from an established industry to give it to one that has only just started. In my opinion we should try and get the match people to work at the Latpanchar and Mana and perhaps in some place at the foot of the hills between Sukna and Sevoke, but only in the latter if they can get people to work there.

Enclosure No. 2.

Extract from Department of Agriculture and Industries letter to Director of Industries, Bengal, No. 5461, dated 11th November 1925.

2. The recommendations made by Mr. Ghose for the development of the Match Industry in Bengal have been summarized in Chapter VII of the report. These recommendations so far as they refer to Government may be classified broadly into two groups:—

- (1) those concerning the Forest Department, and
- (2) those concerning the Industries Department.

The recommendations which directly concern the Forest Department are as follows:—

- (1) Formulation of a definite forest policy which would once for all remove all doubts and difficulties in the way of supplying matchwood.
- (2) In areas recommended by Mr. Ghose as suitable for the erection of match factories plantations of the species which are suitable for match wood, as mentioned by him, in respect of each particular locality.
- (3) Conservation of particular species suitable for matchwood purposes.
- (4) Conservation of particular forest areas for the above purpose.
- (5) Granting of special royalty rates.
- (6) Granting of special facilities and help from the Forest department, including guarantees of specific quantity and quality, sustained supply from particular areas and divisions and utilization of the forest staff for this purpose.

The recommendations which directly concern the Industries Department are the following:—

- (1) Obtaining concessions of freights from the railway and steamer companies for raw materials and finished goods.
- (2) Granting loans or subsidising in some shape.
- (3) Buying local products for Government or State use.
- (4) Retaining the enhanced import duty on all foreign matches so as to serve as protection and not enacting to levy any tax on local manufacture.
- (5) Reducing the import duty on chemicals and other raw material for matches.
- (6) Giving general technical advice.
- (7) Starting model match-making factories.

3. As regards the recommendations which concern the Forest Department, I am to enclose herewith for your information a copy of the letter

No. 1473—1T-27, dated the 20th March 1924, from the Conservator of Forests, and its enclosure, containing his considered opinion on the subject. The Forest Department are on the whole prepared to accept these recommendations as guiding factors in dealing with any application made to them by individuals for the purpose of obtaining a supply of wood for match making provided that the establishment of a factory for any branch of the match industry does not interfere with the supply in any particular locality for purposes of fuel wood or wood for tea boxes, etc. It is already the accepted policy of the Forest Department to make regular plantations of many of the species which are mentioned by Mr. Ghose as suitable for the industry, as some of them are also required for the purpose of fuel wood, etc. They, however, cannot undertake to make plantations specially of species which are useful for match purposes only but not for other purposes unless they are satisfied that the industry is likely to be developed in a particular area. The same remarks also apply to Mr. Ghose's recommendation for the conservation of certain particular species and certain forest areas for the purposes of match wood. In regard, however, to the recommendation for special royalty rates, the Forest Department would not entertain any application for any reduction in areas where the supply of wood was barely equal to the demand but would be prepared to allow reduced rates, at least temporarily in order to secure new business and to develop new areas for which there was at present very little demand. Such concession has already been allowed in the case of the Bande Mataram Match Factory.

4. With regard to the recommendations which affect the Industries Department, I am to say that so far as item 6 of the recommendations regarding the rendering of general technical help, mentioned in paragraph 2 above, is concerned, Government are prepared to give such help whenever required. As a matter of fact, this kind of help is being rendered at present by the Industries Department. As regards items 1 and 3 of the recommendations which relate to railway and steamer freight concessions and State patronage of the products of the local manufacture, I am to state that Government would be prepared to consider each application on its merits. Item 2 of the recommendations regarding the granting of loans or subsidies can only come up after the proposed State aid to Industries Bill has been passed. As regards items 4 and 5 of the recommendations dealing with import duties I am to say that these are matters which concern the Government of India and that the Government of Bengal are not required at present to take any action in regard to them.

5. As regards the recommendation for the starting of model match factories you considered the possibility of the establishment of an up-to-date match factory capable of producing 1,000 gross boxes per day on the lines suggested by Mr. Ghose in the report and raised the question as to whether Government were prepared to accept in principle the desirability of establishing a demonstration splint factory at the cost of the State. What you, however, evidently intended was the establishment of a self-contained demonstration factory as the starting of a model splint factory would be quite useless unless there were some finishing factories to take over the products of the former.

The match industry is undoubtedly one of great importance, but it is already in existence in this province. It appears that the Industries Department have already undertaken a considerable amount of research work in connection with the industry, e.g., as regards damp-proofing and on the completion of the new research laboratory buildings already taken in hand the department will have facilities for undertaking any further chemical research that is required. It also appears that experiments in splints and woods have been made in one of the existing factories. In the circumstances, it does not appear that there could be much utility of starting a model factory unless it is intended to demonstrate the commercial possibilities of match-making. But the possibilities of making the industry commercially successful depend very largely on wood supply and the position of the factory as regards the unfettered supply of wood and labour and it is obvious that a Government factory in one spot would not necessarily demonstrate the com-

mercial possibilities of a factory in another spot. Apart from this consideration Government feel doubtful as to the soundness of the policy of demonstrating the commercial possibilities of a big factory at the present stage and it is evident that only a big factory will pay. Moreover, the establishment of a self-contained factory cannot help the cottage industries unless it is able to build up subsidiary industries of splint and box making and confine itself to the finishing, but in that case all its own machinery being on too large a scale will be useless. In order to help the cottage industries such a factory would also have to be situated in the middle of populated country where the home industry can flourish, and the slopes of Senchal hills where you suggest the erection of a demonstration factory would be unsuitable for this purpose.

6. In the circumstances explained above, Government are of opinion that there is no scope for the establishment of a self-contained match factory on the lines recommended by Mr. Ghose. They are, however, prepared to consider any practical proposals for the encouragement of the match industry in Bengal, especially as a home industry. I am accordingly to request that you will be so good as to examine the matter from this point of view and to submit definite proposals, if any, for the consideration of Government in due course. It is understood that the Government of Bihar and Orissa in the Industries Department have started a scheme for the development of the match industry in that province and I am to request that you will be good enough to obtain details of the scheme for consideration in connection with any proposals which may be put forward.

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Enclosure No. 3.

Statement giving detailed information on the various points referred to in paragraph 3 of the Tariff Board's letter under reply.

A. (1) (i) and (ii).—*Vide* pages 17—28 of Mr. Ghosh's report and letter No. 1473-1-T-27, dated 20th March 1925, from the Conservator of Forests, Bengal.

(iii) Wood for the manufacture of packing cases is available anywhere where wood for matches is also available.

(2) *Vide* pages 29—37 of Mr. Ghosh's report.*

(3) For any factory situated near a forest where wood is obtainable in sufficient quantities for matches wood for burning as fuel would also be available. Only a small proportion of the Bengal forest trees are suitable for anything else except fuel. But near towns or thickly populated areas there is a local demand for fuel and the supply would not be unlimited and as Mr. Ghosh says on page 52, it might be necessary to burn coal.

Mr. Ghosh's report gives rates for all classes of timber and presumably the cheapest rates apply to log required for fuel. It is impossible to give estimate of the cost of fuel and the quantities available for fuel for the whole of Bengal in more detail than Mr. Ghosh has done.

(4) Generally speaking labour is plentiful with all factories which have been established for sometime; but some concerns particularly those which have Jute or Cotton Mills as neighbours complain of fluctuation due to employees being reluctant to remain for a short time with comparatively low earnings in order to gain sufficient skill to earn more. In common with other industries some of the smaller concerns experience difficulty in obtaining labour during the harvesting period, but this difficulty is not so great as it might be since this period coincides with the off seasons of the match industry. Some of the larger concerns have now installed Box Filling Machines

* Not printed.

so that child labour hitherto taking care of that portion of the process have now come into the market for similar employment in smaller capitalised factories.

In so far as future small match factories are concerned, there should be no difficulty in obtaining the requisite child labour in view of the attraction to the latter being able to earn comparatively high wages.

MATCH FACTORY: WAGES: (Average per month).

Box FILLING DEPARTMENT.

Children (12 to 15 years)	Rs. 20-0-0 (6 hours per day, 6 days per week).
Men	Rs. 22-8-0 (10 hours per day, 6 days per week).
Women	Rs. 25-0-0 (10 hours per day, 6 days per week).

In the larger European Match Factories box filling to a great extent is carried out by machines so that few persons are employed in that branch of the process.

Box MAKING DEPARTMENT (by hand).

Children	Rs. 26-0-0 (Contract) (6 hours per day, 6 days per week).
Men	Rs. 26-0-0 (Contract) (10 hours per day, 6 days per week).
Women	Rs. 26-0-0 (Contract) (10 hours per day, 6 days per week).

The larger concerns do this work either by machines or arrange to get it done by contract workers working in their own homes.

Box MAKING DEPARTMENT (by machine).

Men	Rs. 28 (daily hands) (10 hours per day, 6 days per week).
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DIPPING DEPARTMENT.

Men	Rs. 28 (daily hands) (10 hours per day, 6 days per week).
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FRAME FILLING DEPARTMENT.

Men	Rs. 40 (daily hands) (10 hours per day, 6 days per week).
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PEELING MACHINE DEPARTMENT (veneers).

Men	Rs. 35 (daily hands) (10 hours per day, 6 days per week).
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STICK PEELING DEPARTMENT.

Men	Rs. 35 (daily hands) (10 hours per day, 6 days per week).
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STICK CUTTING DEPARTMENT.

Men	Rs. 28 (daily hands) (10 hours per day, 6 days per week).
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B. (1) *Vide* pages 38-41 of Mr. Ghosh's report.

Maps illustrating the sites mentioned in the report not available.

(2) It is understood that a detailed statement showing the number, location, size of factories in Bengal, including those working on cottage industry lines, and the approximate date of establishment of each factory has already been furnished to the Tariff Board by the Director of Industries, Bengal. A list of registered factories in Bengal, as now furnished by the C. I. F., Bengal, with such details as are available is enclosed herewith.

(3) It is understood that a statement on this point has been forwarded to the Tariff Board by the Department of Industries, Bengal, direct.

(4) With the exception of Khulna and Calcutta no match factory of any magnitude has been started in any other place recommended either in Mr. Troup's memorandum or in Mr. Ghosh's report.

(5) None of the factories mentioned in the list referred to in B above have been closed, except the Supermantosh Match Factory which was closed for the reason stated therein.

(6) Of the 14 registered factories mentioned in the list one is owned, controlled and managed by Japanese, one is owned, controlled and managed by Swedes and the rest are Indian owned, controlled and managed.

C. (1) Almost all the factories are located in or near about Calcutta. The only arrangement that has been made for the sale of trees from Darjeeling forests (Senchal Block II) to the match industry is that with Babu Sailendra Nath Mitra, Proprietor of the Bande Mataram Match Factory by which he has been permitted to remove from coupes in the same felling series before they are sold by auction, trees suitable for match-making, paying royalty at the ordinary scheduled rates.

(2) One anna per cubic foot for match wood to be taken from the Darjeeling forests (Senchal Block II) with effect from March 1927.

(3) *Vide* reply to C (1) above.

(4) As no such applications have so far been received by Government, the questions do not arise.

(5) *Vide* paragraph 3 of this department, letter No. 5461, dated 11th November 1925.

(6) No.

D. *Vide* Appendices II and III to Mr. Ghosh's report.

E. and F. The figures relating to the import of matches into Bengal as per statement enclosed and those relating to the estimated production of the local factories as shown in the detailed statement which has been furnished to the Tariff Board direct by the Director of Industries, Bengal, will furnish an idea of the extent of local demand for matches and also the stage the industry has reached in Bengal.

Number of registered match factories in Bengal—14.

<i>Location.</i>	
Calcutta	1
24-Parganas	12
Khulna	1

Calcutta.

Name of factories.	Employees approximately.
1. Esavi India Match Manufactory	601

24-Parganas.

Name of factories.	Employees approximately.
1. Calcutta Match Works	890
2. Western India Match Factory	914
3. Esavi India Match Factory	946
4. Supermantosh India Match Factory	Closed for past 12 months since fire took place.
5. Pioneer Match Factory	400
6. Radha-Shyam Match Works	63
7. Karimbhoy Match Manufactory	275
8. M. N. Mehta Match Factory	756
9. Sukalu Match Factory	33
10. Sultan Central Match Works	19
11. Standard Match Works	49
12. Bhagirathi Match Factory	125

Khulna.

1. Sunderban Match Works	39
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Name of factories.

Date of Establishment.

Calcutta.

1. Esavi India Match Company's Factory, 36-A, Hogulkuria Gulley	January 1925.
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24-Parganas.

1. Calcutta Match Works, Dilwarjah Lane, Garden Reach	October 1924.
2. Western India Match Company's Factory, 46-5, Canal East Road	September 1924.
3. Esavi India Match Manufactory, 46, 46-1-1, Muraripukur Road	January 1925.
4. Supermantosh and Company's Match Manufactory, 25, South Road, Entally	January 1925.
5. Pioneer Match Factory 16, Dum Dum Road	June 1925.
6. Radha-Shyam Match Works, 10, Roy Mathuranath Chowdhury's Lane, Baranagore	August 1925.
7. Karimbhoy Match Manufactory, 32, Canal West Road	August 1925.
8. M. N. Mehta Match Factory, 104, Ultadinghi Main Road	October 1925.
9. Sukalu Match Factory, 14, Gurudas Datta's Garden Lane	November 1925.
10. Sultan Central Match Works, 35-5, Canal West Road	December 1925.
11. Standard Match Works, 13, Paikpara Road, Tallah	April 1926.
12. Bhagirathi Match Factory, 1, Jogan Bysack Road, Barnagore	November 1926.

Khulna.

1. Sunderban Match Works, Khulna	June 1925.
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Matches.	Quantity in gross o' boxes.					Value in Rupees.				
	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
Safety	2,879,961	3,968,839	3,268,417	3,002,587	2,157,211	42,06,338	61,60,748	44,72,802	47,49,112	30,90,761
Other sorts	62,047	12,500	87,481	39,409	78,909	1,07,513	26,578	1,03,913	54,875	1,37,648
TOTAL MATCHES	2,942,008	3,981,339	3,355,898	3,041,996	2,236,120	43,14,851	61,87,326	45,76,715	48,03,987	32,28,409

Match-making materials (at the Calcutta port).	Quantity in lb.					Value in Rupees.				
	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
Undipped splints	319,190	...	...	...	...	71,861
Veneers for match boxes and Empty boxes.	705,132	...	...	...	...	2,71,812
TOTAL	1,024,322	...	...	...	...	3,43,673

Government of the Punjab.

Letter, dated 24th February 1927.

With reference to your letter No. 58, dated 8th January 1927, to the address of the Chief Secretary to Government, Punjab, I am directed to forward herewith a copy of a joint note on the Match Industry in the Punjab written by the Director of Industries and the Chief Conservator of Forests, Punjab, which deals with all the points raised by the Board.

2. With reference to paragraph 4 of your letter under reply I am to say that if the Board could give an indication after a perusal of the enclosed joint note as to the approximate date of their visit with the places to be inspected, necessary suggestions for a tour programme will be forwarded.

The Match-making Industry in the Punjab.

(A note compiled with special reference to the Secretary, Tariff Board letter No. 58, dated 8th January 1927, to the Chief Secretary to the Government of the Punjab.)

(*Vide* Secretary, Development Department, Punjab's endorsement No. 423-A.D., dated 27th January 1927, to the Chief Conservator of Forests, Punjab.)

General. (Last sentence of paragraph 2 of the Tariff Board's letter.)

The present condition of the match-making industry in the Punjab cannot be described as flourishing; but there is little, if any, reason to despair provided that it is recognised that the building up and growth of the industry depends:—

- (i) On ready co-operation between the Punjab and its neighbours, the Kashmir, Chamba and Bashahr States;
- (ii) On reasonable protection against the unduly cheap marketing of foreign matches or matches manufactured from foreign wood in India by powerful foreign match companies and combines;
- (iii) On the grasping of every favourable opportunity to improve communications and cheapen transport with the forests of the higher hills, which contain a very large supply of wood believed to be suitable for match making.

At the moment there is only one match factory in the Punjab—The Mahalakshmi Match Factory at Shahdara, near Lahore, owned and operated by Sir Daya Kishan Kaul and Sons. This factory is equipped with up to date and efficient machinery and is conducted with sufficient expert knowledge of match making; but it is handicapped by the fact that it was erected without adequate consideration of the difficulty of obtaining, near Lahore, a sufficiency of cheap wood suitable for match splints and box veneers. It should at once be made clear that this factory was started without consultation with the Forest Department, who cannot, therefore, take any responsibility for the difficulties in which the factory now finds itself. The factory continues to work by buying blue pine (*Pinus excelsa*) wood in the open market and supplementing supplies of this wood by small quantities of other woods, chiefly the Hill Poplar (*Populus ciliata*) and the riverain Poplar (*Populus euphratica*): but Blue Pine wood is in reality too valuable a wood for match splints, (though entirely suitable for box veneers), while the other 2 woods cannot be had in sufficient quantities or of good enough quality at present. The prospects of the match-making industry in the Punjab are sufficiently good, provided that it is recognised that development must, by the condition of things, be slow and must involve the investment of capital on a considerable scale.

The Forest Department's views on the prospects are set forth in general terms in a note entitled "Note on the possibilities of establishing a Match Industry in the Punjab" issued by the Utilization Circle, with the approval of the Chief Conservator of Forests, Punjab, a copy of which is attached (Enclosure I).

The Forest Department believes that a real development of this industry depends on the utilization of the large quantities of Silver Fir and Spruce wood growing in the remoter parts of the High Hills. But, since it is clear from actual experience at the Mahalakshmi Factory that these 2 woods are not suitable for "peeling" when the sap has been dried out after transport by water over long distances, the development of the industry will, it is believed, depend upon the preparation of splints in special splint factories erected in the close vicinity of the Silver Fir and Spruce Forests, and transfer of the manufactured splints from these factories to the plains, where the finished match would be produced at a central factory, located at a spot, where packing case and box veneer material, chemicals, and paper can be obtained in sufficient quantities at reasonable cost. But development on these lines is very largely dependent upon improved communications, since the cost of transport of "splints" must be as low as possible if a match is to be produced at a competitive price. In practice it would appear that the industry must be started on a small scale, utilizing such accessible forest areas as there may be at present, and gradually expanding as improved communications and cheap transport enable fresh forest areas to be exploited for match wood. Nor must it be forgotten that but a small proportion of the supply of Silver Fir and Spruce wood, available in Northern India, actually lies within the boundaries of British Punjab; the proportion is probably not more than 10 per cent. of the whole, while Chamba (10 per cent.), Bashahr (10 per cent.) and Kashmir (70 per cent.) all contain forests which could provide these woods to a large central finishing factory situated in the Punjab. Such a factory, given patience and time, might provide for the whole of the match demand of Northern India, (Punjab, United Provinces, North-West Frontier Province and the Native States adjoining).

Sources, etc., of wood supply. (A (1) of Tariff Board's letter.)

The following woods in the Punjab are believed to be suitable for match making:—

Silver Fir (<i>Abies Pindrow</i>) . . .	} For splints (when green) and packing cases.
Spruce (<i>Picea morinda</i>) . . .	
Blue Pine (<i>Pinus excelsa</i>) . . .	. For splints and box veneers.
Hill Poplar (<i>Populus ciliata</i>) . . .	. For splints.
Riverain poplar (<i>Populus euphratica</i>).	For splints.
Simal (<i>Bombax malabaricum</i>) . . .	. For box veneers.

The Punjab Government only owns one important area of *Silver Fir and Spruce forests*, namely that lying in the Kulu and Seraj Forests Divisions. These forests can produce at least 1 million cubic feet of match wood annually in perpetuity, but without improved communications they are economically inaccessible to the match manufacturer, since the wood must be used green.

Subject to the qualifications as to accessibility there is a further supply in the North-West Frontier Province Government forests of Hazara District, which could yield probably another 750,000 cubic feet per annum (of which some 50,000 cubic feet may prove to be immediately accessible). The forests of Chamba State contain another million cubic feet, but are unlikely to be economically accessible for many years to come, the same remarks applying to the forests of Bashahr State, (which will give another million cubic feet per annum). The Kashmir State will produce some 5 to 6 million cubic feet per annum, of which probably 1 million cubic feet could be exploited immediately. The visible supply of Silver Fir and Spruce wood in the north of India, utilizable by a Punjab Match industry is therefore round about 9-10

million cubic feet per annum, of which however probably a little more than 1 million cubic feet are at present economically accessible for match splints; while probably 1 million cubic feet more could be produced from Kulu and Seraj forests for packing cases, since water-borne wood is suitable for this purpose.

The Blue Pine is available in considerable quantities but has a value which places it beyond the reach of the manufacturer of matches on a large scale, except for box veneers. The Punjab Government forests would certainly produce 50,000 cubic feet of wood a year suitable for this purpose and immediately available, (since water-borne Blue Pine wood is suitable). The other localities mentioned above will produce 5 or 6 times this quantity so that there is no question that sufficient quantity of this wood is available for box veneers for the largest factory.

The Hill Poplar is not at present found in large enough quantity in concentrated areas to allow of sole dependence upon this wood by a factory. However even at present it might prove a useful source of supplementary supply: while it is possible that plantations of this tree could be grown in suitable localities without very great difficulty.

The Riverain Poplar is at present found in considerable quantities only along the Indus river in the Muzafargarh and Dehra Ghazi Khan Districts. The present stocking of the forests is extremely poor owing to past neglect, and the production of wood suitable for match making does not exceed 10,000 cubic feet per annum. Steps are now being taken to improve the quantity and quality of wood in these forests, and it is possible that after some 20-25 years the supply of wood will gradually increase to a maximum of 75,000 cubic feet per annum. It is also possible that the supplies of this wood could be considerably increased by plantations in riverain areas, or even in parts of the Irrigated plantations of the Punjab.

The Simal does not at present form large forests in the Punjab so that no large quantities of this wood are at present available for box veneers. It is just possible that supplies of this wood could be increased by planting.

Proximity and accessibility of supplies. (A (2) of Tariff Board's letter.)

Information on this point has been included in the preceding section. To sum up it can be said that supplies of the most abundant woods, namely, Silver Fir and Spruce depend entirely on improved communications. These 2 woods could not be obtained in full quantity from a single source, the position is summarised as follows for these 2 woods:—

Silver Fir and Spruce.

Source.	Ultimately available.	Now available.
	C. ft.	C. ft.
Punjab, (Kul : Seraj)	1,000,000	..
North West Frontier Province (Kagan)	750,000	50,000
Chamba States	1,000,000	..
Bashahr State	1,000,000	..
Kashmir Stat	6,000,000	1,000,000
TOTAL	9,750,000	1,050,000

The blue pine forests are all accessible by river and subject to cost, (which is to-day round about 12—14 annas per cubic foot in the log), are in sufficiently close proximity for use in a plains finishing factory for box veneers.

The Riversiu poplar forests are the only other immediate source of supply and are concentrated in 2 neighbouring districts in the South West Punjab. Supplies are at present limited, but will increase. The forests are all accessible and are in close enough proximity to any locality likely to be used for match manufacture.

Fuel supply. (A. (3) Tariff Board's letter.)

The fuel woods available in the plains are Shisham, Mulberry, *Jhand* and *Farash*, the 2 former growing in irrigated plantations and the 2 latter in the dry rakhs. Supplies from dry rakhs will rapidly decrease with the advance of irrigation. There will always be ample supplies of fuel for match factories in the plains at a cost of approximately 10 per cent. c. ft. stacked for *Shisham* and mulberry and Rs. 6 per cent. c. ft. stacked for *Jhand* and *Farash*. For splint factories in the Hills there will be ample supplies of fuel in the form of waste wood from conversion, branch wood, etc., at a cost of some 4 annas per maund.

Available supply of labour and wages. (A. (4) of Tariff Board's letter.)

The Mahalakshmi Match Factory experiences no difficulty in getting an adequate supply of labour. The whole process of match manufacture, from the sawing of the logs to the packetting of finished products requires a certain amount of skill, which is not difficult to acquire. The labour employed in the factory consists of:—

Skilled 137 men and boys, working on machines.

Wages range between Rs. 8 and Rs. 25 per mensem according to qualifications and age.

Skilled 12 mechanics, mistries, fitters, etc.

Wages range between Rs. 15 and Rs. 80 per mensem.

Unskilled 35 men working in the timber yard, stores and for transportation of finished products.

Wages range between Rs. 20 and Rs. 25 per mensem.

Match Factory sites. (D. (1) of Tariff Board's letter.)

Mr. Troup has mentioned Beas and Ghazi Ghat as 2 possible but not promising sites for match factories. Beas is not suitable in view of the fact that sufficient supplies of *cheap* wood for splints would not be available, owing to the more or less established fact that Silver Fir and Spruce timber when carried long distances by water is not suitable for match splints; the site is by no means the most suitable for a central finishing factory. At present at any rate Ghazi Ghat is not suitable for a factory, since present supplies of wood are insufficient to feed even the smallest factory. In fact an investigation carried out in 1909-10 by Messrs. Macbeth and Monro proved this to be the case: the position has not yet sufficiently improved to permit of revision or their decision. After the lapse of some 20 years it is possible that the supply of suitable wood will have sufficiently increased to justify the erection of a "Splint" factory at this place.

For reasons already stated the Forest Department advocates a Central Finishing Factory to which prepared "splints" would be sent from special splint factories, located in the neighbourhood of the forests growing suitable "splint" wood. There will be no objection however to "splint" machinery at the Central Factory on a small scale to deal with such quantities of suitable woods as can be economically obtained but not in large enough quantities for any one locality to justify the erection of a splint factory *in situ*.

Probably Lahore is a quite suitable locality for the Central Finishing Factory, which will deal with the chemical side of the industry, making of packing

cases, making of match boxes, making of splints on a small scale, and labelling and packing. Such a factory must be on a main line of railway, as near as reasonably possible to ports, admitting the necessary chemicals, etc., and yet not unduly far from the centre of the wood producing areas—Lahore fulfills this purpose sufficiently, so that the Mahalakshmi Factory may be considered to be satisfactorily located.

Splint factories could almost certainly be established immediately in the Vale of Kashmir where supplies of Silver Fir and Spruce wood are unusually accessible. No details can however be given by the Punjab Forest Department as to the number and location of such factories.

Lack of communications at present limits the possibility of establishing splint factories elsewhere: but it is believed that a factory would be justified at Balakote at the foot of the Kagan Valley in Hazara District and possibly also above Shinkhari in the Siran Valley of the same district. An extension of rail facilities to the borders of or on to Kulu coupled with good cart roads would open up a possibility of 2 more splint factories, probably located at (1) Bhuin (at the junction of the Beas and Parbatti Rivers), and (2) above Monali at the head of the Beas River. Other factories in the High Hills are out of the question unless good communications are established, and there seems little immediate prospect of such a development in Chamba and Bashahr States in the near future. As already stated a splint factory at Ghazi Ghat may prove feasible 20 years hence.

Number, etc. of Match factories in the Punjab. (B. (2) of Tariff Board's letter.)

The only match factory in the Punjab is the Mahalakshmi Match factory (proprietors—Sir Daya Kishen Kaul and Sons) located at Shahadra, near Lahore, started in 1925 and equipped with modern machinery of German make. It is understood that a splint factory subsidiary to this Central factory has just been erected in Kashmir State to utilise a concentrated area of poplar (*populus alba*) forest which is the property of Sir Daya Kishen Kaul: but no particulars are available in the Forest Department. The factory at Shahdara is at present designed to deal with 1,000 gross boxes of matches daily, but is at present believed to be working at about $\frac{2}{3}$ of its full capacity owing to lack of wood. The factory started work in 1925.

Utilization of indigenous wood. (B. (3) of Tariff Board's letter.)

Owing to (1) difficulties of extraction, (2) lack of communications with the important sources of Silver Fir and Spruce wood supply and (3) the dearth of wood, other than Silver Fir and Spruce, suitable for match making, the Forest Department has not yet been able to supply large quantities of wood for the manufacture of matches. The following statement gives the necessary statistics on this point:—

Kind of wood.	Quantity sold.	Price per	Cost per cub'c
		cubic foot solid realised.	foot solid of extraction.
	C. ft.	Rs. A. P.	Rs. A. P.
Riverain Poplar	17,000	*0 3 0	0 1 5
Blue pine	12,903	0 12 9	0 10 0
Fir	1,666	0 6 9	0 14 0

*Price for firewood and match logs combined works out at approximate 2 annas per c. ft. solid. This figure has been raised 50 per cent. for match logs alone.

Erection of factories on Mr. Troup's sites. (B. (4) of Tariff Board's letter.)

No match factories have been erected on the sites contemplated by Mr. Troup for reasons already explained.

Closure of factories owing to financial losses. (B. (5) of Tariff Board's letter.)

No match factories in the Punjab have so far been closed owing to financial losses: but unless conditions governing the supply of Silver Fir and Spruce wood can be improved (chiefly by means of improved communications with the Inner Himalayan forests), the position of any Match factory in the Punjab must remain precarious.

Foreign capitalists and the Match Industry. (B. (6) of Tariff Board's letter.)

No Match factories in the Punjab are owned or controlled by foreign capitalists.

Arrangements for sale of wood from Government forests. (C. (1) of Tariff Board's letter.)

Wood is purchased by the Mahalakshmi factory in the open market, either at auction or at rates based upon prices realised by sales of similar wood at auction, from the Government depôts.

Restrictions on concessions to foreigners. (C. (4) of Tariff Board's letter.)

The royalties on wood sold by the Punjab Forest Department to the Mahalakshmi Match Factory have been approximately as follows:—

- (i) Blue Pine (*Pinus excelsa*) 1 anna per c. ft.
- (ii) Silver fir (*Abies pindrow*) and Spruce sold at a loss.
(*Pices morinda*).
- (iii) Riverain poplar (*Populus euphratica*) 1 anna per c. ft.

Concessions for extraction of wood. (C. (3) of Tariff Board's letter.)

No concessions have so far been granted.

Restrictions on concessions to foreigners. (C. (4) of Tariff Board's letter.)

The question has not so far arisen in the Punjab so that no general policy has as yet been formulated.

Plantations for production of Match wood. (C. (5) of Tariff Board's letter.)

No plantations of this nature have so far been formed in the Punjab for production of wood, suitable for match-making. In the event of a successful development of the resources of Silver Fir and Spruce, such plantations on a large scale would hardly be necessary as ample supplies of these woods exist to meet all possible demand for matches in Northern India. Some experiments are, however, about to be undertaken to see whether the supplies of riverain poplar (*Populus euphratica*) and Simal (*Bombax malabaricum*) can be increased by planting on an economic basis.

Plantations by manufacturer of matches. (C. (6) of Tariff Board's letter.)

No plantations of this nature have been made in the Punjab.

Conditions and cost of transport. (D. of Tariff Board's letter.)

Road transport in the High Hills is possible between April and December: snowfall stops traffic during December—March. Inundation prevents transport from the riverain poplar forests during the monsoon period.

River Transport of logs is usually carried out in the spring and early summer between the melting of the snow and the flooding of the rivers with the establishment of the monsoon in July-August, some log floating is also done in the autumn commencing before the monsoon begins to subside.

Rail transport is possible at all seasons of the year. The cost of transport can be put at the following rough figures:—

- (i) By ropeway, timber slides, etc. 6 pies per maund per mile.
- (ii) By bridle road (pack animals) . 1 anna per maund per mile.
- (iii) By hill cart road . . . 3 pies per maund per mile.
- (iv) By other cart roads . . . 1½ pies per maund per mile.
- (v) By river ¼ pie per maund per mile.
- (vi) By rail ¼ pie per maund per mile.

(And 2 pies per maund terminal charges.)

For the Central finishing factory at Lahore methods (i), (iii), (v) and (vi) would be utilised for wood or splints required. For splint factories in the hills methods (i), (ii) and (iii) would be utilised.

Local demand for matches: disposals from local factories. (E. of Tariff Board's letter.)

It is difficult to find out exact figures of consumption of matches in the Punjab, as imports of matches into the Punjab are not separately recorded in the Provincial Trade reports. However, a statement showing the imports into India of matches and the estimated imports into the Punjab is enclosed (enclosure II). The figures for the Punjab have been arrived at on a population basis, i.e., 1/13th of the total Indian imports. The imports for the last two years have considerably decreased. The decrease might be attributed to the establishment of match factories in India. The Shahdara factory which is capable of turning out 1,000 gross of boxes per day is at present producing 750 gross a day. The output during 1925-26 was 95,682 gross of boxes, which represents about 1/5th of the estimated consumption of matches in the Province. The entire output of the factory is disposed of in the Punjab and North-West Frontier Province through agents. The demand is far in excess of what it can possibly turn out.

State which the Match Industry has reached in the Punjab. (F. of Tariff Board's letter.)

The industry is still in its infancy in the Punjab and development must of necessity be slow, depending as it does (i) mainly on the opening up of the inner Himilayan forests by adequate cart road and railway development, (ii) the steady, but necessarily slow improvement of the riverain poplar forests in the S. W. Punjab.

Inspection of Match factories by the Board.

The Mahalakshmi Match Factory can be visited from Lahore at any time on application to Sir Daya Kishen Kaul and Sons, Abbott Road, Lahore: as also the recently erected Splint Factory in Kashmir, by rail and motor from Lahore to Srinagar (2 days' journey).

Enclosure No. I.

Note on the Possibility of establishing a Match Industry in the Punjab.

1. This note is designed to supply preliminary information to the many firms and private individuals who appear to be anxious to establish match factories in the Punjab and elsewhere in India, by using wood from the Punjab forests.

2. There are very large quantities of silver fir and spruce wood in the far distant and not easily accessible forests of the Himalaya proper, notably at the head of the Beas, Sutlej, Chenab and Jhelum valleys—by far the greater part of available supplies being situated in Native States, such as Kashmir (Jhelum and Chenab rivers), Chamba (Chenab and Ravi rivers) and Bashahr (Sutlej river). The forests lie in the heart of the Himalaya proper at a distance by river or by bridle path and cart road of 300 miles or more from the Punjab plains. Both these woods are suitable for packing cases and, under certain circumstances, for match splints. They could be supplied up to a total of some 25 lakhs of cubic feet of logs a year. But the circumstances under which silver fir and spruce are suitable for match splints are an all-important factor, and require detailed expert examination before anyone would be justified in establishing a match factory, depending mainly upon these woods. So far as the limited information in the possession of the Forest Department goes, it can be said that these woods must be put through the splinting machines *green* (that is to say, with the natural sap still in the wood, and that they lend themselves more to conversion into round grooved splints of the "pine vesta" type than to conversion into the more common square splint. At the same time it is possible that experiments with green wood (which have not yet been carried out) may prove that good square splints can be made from such wood. It must be clearly understood, therefore, that it is very doubtful if silver fir and spruce logs carried to the Punjab plains by water will be suitable for any other purpose than packing cases and similar purposes; so that it may prove necessary to arrange for splint manufacture in the vicinity of the forests, and not in the plains. It is clear from the above that very careful calculations of costs, etc., are essential before launching any large scheme of match manufacture in the Punjab.

On the other hand, there are large supplies of kail wood in the same localities to meet the demands of large match factories for match box veneers and splints. For both these purposes, this wood is quite suitable, even after extraction to the plains by water.

3. While it is true that large supplies of wood are available in the forests, it is by no means true that any of these woods can be obtained in the plains, either in a form (see the remarks above regarding silver fir and spruce wood) or at a price which makes their use for match-making a sound commercial proposition. In the case of silver fir and spruce forests, extraction from the forests, and by the rivers, is a very difficult and comparatively expensive operation: nor can costs be reduced without very heavy initial capital outlay on lines of transport (such as ropeways, logging roads and flumes), and on river improvement (to enable logs to be floated out of the higher reaches of the river). Without such capital outlay it is impossible to tap more than perhaps 10 per cent. of the silver fir and spruce forests at all, while so far as limited experience has shown, even in the case of this 10 per cent. it is probably impossible to deliver logs of these timbers in the plains at a cost price figure of less than 9 to 12 annas per c. ft. (this figure including no value for the wood itself). The cost of delivering silver fir and spruce logs at a factory situated in the near vicinity of the forest would probably be round about 4 annas per c. ft. (again this figure includes no value for the wood itself).

The position in the case of kail wood is somewhat more favourable as regards extraction, but the demand for this wood for general purposes is sufficiently keen to give a market value to the wood, which tends to put the wood almost out of the reach of any but the largest and most highly organised match factories. This wood is, to-day, worth some 14 to 16 annas per c. ft. in the log, sold at plains depôts.

4. Apart from the problem of wood supplies, a Punjab match factory would be faced with difficulty in obtaining the requisite chemicals and paper at a reasonable price, since, at present at any rate, India does not produce these requisites in large enough volume or at a price, to enable successful competition with the large match "combines" of Europe and Japan. So real is this difficulty that, even where wood has been obtained in India for match splints and boxes, firms have preferred to sell those unfinished products to the large

European " combines " to be turned into the finished match. For this reason also it follows that none but the biggest scale and most highly organised concern could hope to establish a profitable match factory in Northern India.

5. Even if the difficulties detailed and implied above were surmountable, it cannot be too strongly emphasised that none of the suitable woods could be used at any distance from the river depôts, to which they are brought, owing to the high railway freight chargeable on so bulky a commodity (thus enquiry showed that freight from the Punjab depôts to Patna in Bihar and Orissa would amount to some 14 annas per c. ft.). This, combined with a relatively high initial cost of wood, obviously makes the export of Punjab woods to other parts of India for match-making an entirely uncommercial proposition.

6. Enquirers often ask whether Government will supply wood for match-making purposes at concession rates. The answer to that question must be in the negative, since the Punjab Government rightly holds that a business, dependent upon a permanent Government subsidy, (which is what a concession price, namely one below the market price of the raw material, amounts to) is not to the commercial advantage of the Province. While some temporary subsidy of this nature might conceivably be considered for a limited period during and after the establishment of a match factory, it is useless for enquirers to base any plans upon a price for wood below the ruling market price from time to time, or for them to count upon obtaining a very long period contract with Government for the supply of timber at a fixed price. It may, however, be said that, so far as can be foreseen, it will be many years before the general market price of silver fir and spruce wood will rise to a figure approaching that for kail, so that subject to cost, the purchase price of these woods probably is and will be within the range desirable for match-making, provided the industry is based upon large scale production and a high standard of efficiency.

7. From what has appeared, above, it cannot be advised that any firm or individual, should consider the establishment of a match factory except upon a really large scale and upon the most up-to-date and efficient principles; while it is a matter of great practical importance to consider what hope, if any, there is of competing with the powerful " combine," which control the match industry in Europe, or with the low prices at which Japanese firms are prepared to sell in India. Certainly no one would be well advised to commit themselves to any scheme for match-making in the Punjab until they have had the advantage of the best available expert advice from specialists, who have had long and intimate experience of match-making as carried on in Europe and Japan.

8. The Forest Department will always be ready to consider the question of supplies of wood if, and when, a firm or individual can prove that the proposition is based upon a sufficient knowledge of the actual problems to be solved and sufficient financial backing to ensure that large capital outlay in the forests would not be followed by the disappearance of the demand with the disappearance of the match manufacturer. It will readily be understood that nothing but a really large and permanent demand, at a fair price, for the woods, indicated as suitable for match splints, would tempt Government to invest the large capital required to open out the forests.

Enclosure No. II.

Statement showing the imports into India and estimated imports into the Punjab of matches and match-making materials, undipped splints, veneers for match boxes and empty boxes.

Year.	IMPORTS INTO INDIA.				IMPORTS INTO THE PUNJAB ON THE POPULATION BASIS <i>i.e.</i> , 1-13TH OF INDIA.			
	MATCHES.		*MATCH-MAKING MATERIAL.		MATCHES.		MATCH-MAKING MATERIAL.	
	Quantity Gross of boxes.	Value.	Quantity.	Value.	Gross of boxes.	Value.	Quantity.	Value.
		£	lbs.	Rs.		£	lbs.	
1913-14	13,894,318	597,651	..	..	1,068,794	45,973	..	..
1914-15	15,415,420	753,245	..	..	1,185,801	57,942	..	..
1915-16	18,304,787	922,040	..	..	1,408,061	70,926	..	..
1916-17	11,159,036	771,318	..	..	858,377	59,332	..	..
1917-18	17,226,856	1,565,585	..	..	1,325,143	120,430	..	..
1918-19	11,119,052	1,098,353	..	..	855,312	84,489	..	..
1919-20	15,015,109	2,048,323	..	..	1,155,008	157,563	..	..
1920-21	12,398,733	1,670,137	..	..	953,749	128,472	..	..
		Rs.			1,052,369	Rs.		
1921-22	13,680,801	2,03,80,469	..	..		15,67,728	..	..
1922-23	11,285,740	1,61,80,658	..	..	868,134	12,44,666	..	..
1923-24	11,243,745	1,45,91,813	..	..	864,903	11,22,447	..	..
1924-25	7,264,785	88,88,611	3,747,368	12,04,348	558,829	6,91,431	}	Probably nil
1925-26	7,928,522	93,45,036	1,154,272	3,91,719	609,886	7,18,849		

* Separately recorded from 1924-25. This material is believed to be wholly absorbed in the Bombay Presidency: little, if any, comes into the Punjab.

Government of Assam.

Letter, dated the 25th February 1927.

I am directed to refer to your letter No. 53, dated the 8th January 1927, and to forward a note recorded by the Conservator of Forests, giving the information required regarding the condition and prospects of the match making industry in Assam.

2. Should the Board desire to visit any sites in this province I am to request that this Government may be informed so that arrangements can be made and a tour programme suggested.

Enclosure.

Note by the Conservator of Forests, Assam.

A. (1) The existence, quantity and suitability of wood for the manufacture of—

- (i) splints,
- (ii) veneers, and
- (iii) packing cases.

Only the species which are available in large quantities have been mentioned.

Species.	(i) Splints.	(ii) Veneers.	(iii) Packing cases.
1. Anthrocephalus Cadamba	Yes.	Yes.	Yes.
2. Bombax malabaricum	"	"	"
3. Duabanga Sonneratioides	"	"	"
4. Gmelina Arborea	"	—	—
5. Mallotus philippinensis	—	Yes.	—
6. Pinus Khasya	Yes.	"	—
7. Steroulia villosa	—	"	Yes.
8. Machilus Bombycina	Yes.	"	—

(2) The proximity and accessibility of the source of supply of such materials with special reference to the question whether it would be possible to obtain them from a single source.

Nos. 1 and 8 above can be obtained together from the Manas river to the existing Match factory at Dhubri; the time taken for delivery at the factory is about one month from the time of felling. In other districts the same time would probably be required; but much depends on the depth of water in the streams feeding the Brahmaputra; in many cases the floating would have to be restricted to the months in which the streams were in flood.

(3) The quantity, kind and cost of fuel available.

Ample wood fuel is available, and coal is fairly cheap; wood fuel as a rule would have to be floated down with the logs for the matches; the cost would vary from 2 to 4 annas per 10 maunds. Coal would vary in cost from annas 9 to annas 14 per maund.

(4) The available supply of labour for the factory and the wages of such labour.

Very little local labour is available, and labour would probably have to be imported; cost from annas 8 to Re. 1 per day.

B. (1) The sites (whether included in Mr. Troup's memorandum or not) which are considered suitable for the establishment of match factories in your province and the special advantages of each site.

Place.	District.
1. Kulai	Kamrup Although Mr. Troup included this in his list, I do not consider it suitable at present; but I understand that the proposed railway line from Gauhati on the south bank of the Brahmaputra may go near Kulsī; in which case it may be a very good site.
2. Bilasipara	Goalpara This site is on the Brahmaputra north bank, and is a calling station for river steamers. Floating from the Manas river would be cheaper than to Dhubri. A map indicating the sites is attached.

(2) The number, location and size of the match factories in your province and the approximate date of the establishment of each.

One has been erected at Dhubri, Goalpara district in 1925; the output is said to be 10 cases of 50 half gross packets per day.

(3) The extent to which indigenous wood is utilized in such factories for—

- (a) splints,
- (b) veneers, and
- (c) packing cases.

The use of indigenous timber is still under experiment; *Bombax malabarium* (No. 2) and *Machilus Bombycina* (No. 8) are chiefly being tried both for splints and veneers.

(4) Whether any such factories have been erected on the sites selected by Mr. Troup in the memorandum referred to above.

No.

(5) Whether any such factories have been closed as a result of financial losses and, if so, what have been the main causes of such failures.

No.

(6) Whether any such factories are owned, controlled or managed by foreign capitalists.

The factory at Dhubri is controlled by the Swedish Match Company.

C. (1) What arrangements are in force for the sale of trees from Government forests to match factories?

The Company had a lease for a year, it is now working under ordinary permit.

(2) What is the royalty levied?

Under the lease 6 pies per cubic foot; under permit Rs. 2 per tree.

(3) Have any concessions for extracting timber for the manufacture of splints, veneers or packing cases been granted? If so, to whom?

Yes, under the lease above mentioned.

(4) Whether as a general question of policy any restrictions are imposed by the local Government on the grant of concessions to applicants of foreign nationality. If so, what is the nature of such restrictions?

No restrictions were imposed in the case of the company now working. Such restrictions are imposed in all mining concessions and it is open to

Government to impose such restrictions in the case of other enterprises. Such restrictions would take the form of requiring the company to be controlled by British subjects.

(5) Has the Forest Department undertaken or is it likely to undertake in the near future any operations for the establishment of plantations of trees suitable for the manufacture of matches?

No operations have been undertaken so far, nor are contemplated.

(6) Have any areas been planted with suitable trees by companies or firms undertaking the manufacture of matches?

No.

D. What are the conditions of transport—

(a) During the monsoon;

(b) During the dry season,

and what is the cost of freight by road, river, rail or sea, whichever method or methods would be necessary with reference to each site mentioned in reply to B. (1)?

Transport by river is the only method by which logs could be brought at an economic price to a factory; the cost of rafting to the existing factory at Dhubri (after formation of raft) is about Rs. 3 per ton or 50 cubic feet. In the other sites mentioned under B. (1) the cost would be about the same.

E. What is the extent of the local demand for matches? How far can the factories dispose of their outturn in the local market?

The demand is large; one or two more factories should easily be able to dispose of their outturn within the province.

F. What stage has the industry reached in your province? Altogether in its infancy.

Government of Bombay.

Letter, dated the 25th February 1927.

With reference to your letter No. 58, dated 7th January 1927, requesting to be furnished with information regarding the condition and prospects of the Match-making Industry in the Bombay Presidency, I am directed by the Government of Bombay (Transferred Departments) to state as follows in regard to the various points mentioned therein.

2. *Paragraph 2.*—The condition of the Match Industry in this Presidency is given in detail by the Director of Information in his note enclosed herewith. The Forest Department is now doing all in its power to help the exploitation of matchwoods. As regards the prospects of the industry as affected by the supply of matchwood from the Bombay forests, I am to observe that the kind of timber suitable for match manufacture is scattered throughout the Presidency, part of it locked up in inaccessible areas and part too far away from probable factory sites to admit of profitable exploitation, leaving a small balance which will not be sufficient to meet more than a fraction of the requirements of the various factories working in the Presidency; and unless the existing stock is supplemented by extensive plantations of suitable species at convenient centres, there is no prospect of the industry working independent of imported woods. The Forest Department is doing all that it possibly can with the present reduced establishment in the way of starting such plantations but the funds available do not admit of much being done and it will be worth while for the factories to undertake such plantations on their own account. The Forest Department will give every help and encouragement they can.

Paragraph 3A (1).—The following species have been extracted at one time or other for match manufacture from the forests:—

(1) *Ailanthus malabarica*,

(2) *Albizia stipulata*,

- * (3) *Alstonia scholaris*.
- * (4) *Bombax malabaricum*.
- * (5) *Bombax insigne*.
- ** (6) *Boswellia serrata*.
- (7) *Cinnamomum spp.*
- (8) *Elaeocarpus* species.
- ** (9) *Garuga pinnata*.
- ** (10) *Holoptelea integrifolia*.
- (11) *Hymenodictyon Excelsum*.
- (12) *Kydia Calycina*.
- * (13) *Lophometalum wightianum*.
- * (14) *Machilus macrantha*.
- * (15) *Mangifera Indica*.
- (16) *Melia dubia*.
- (17) *Myristica* species.
- ** (18) *Odina Wodier*.
- ** (19) *Spondias mangifera*.
- * (20) *Spondias acuminata*.
- (21) *Symplocos Beddomel*.
- (22) *Trewia nudiflora*.
- (23) *Buchanania latifolia*.
- (24) *Dysoxylum binectariferum*.
- (25) *Holigarna arnottiana*.
- (26) *Diospyros paniculata*.
- (27) *Erythrina suberosa*.
- (28) *Erythrina indica*.
- (29) *Fig spp.*
- (30) *Sterculia foetida*.
- (31) *Tetrameles nudiflora*.
- (32) *Boswellia serrata*.
- (33) *Populus euphratica* (in Sind).

The manufacturers know best what species are suitable for splints, veneers and packing cases. The following information has been ascertained by the local officers from agents of factories or otherwise:—

Species Nos. (1) to (22) and (33) are reported to be suitable for splints. Those marked with * are reported to yield superior splints.

Most of these species, i.e., Nos. (1) to (22), (33) and also (23) to (25) are reported as suitable for boxes.

Species Nos. (26) to (32) are reported to be suitable for the manufacture of packing cases.

It is impossible to give an accurate estimate of the total matchwood stand when a good deal of it is not available for economic exploitation for match manufacture, e.g., large quantities of *Boswellia serrata* (annual yield of about 2,000 tons) located in the Satpudas covering over 400 square miles of rugged country which cannot be exploited because its exploitation will be too expensive in view of the large average lead, rough country and absence of extraction roads. It is noteworthy that though the species is reported to be suitable for splints, no match manufacturing company has attempted its exploitation from the Satpudas. Experiments are at present in progress in North Khandesh to determine the suitability of this species for being tapped for its Oleo-gum-resins.

The appended statement shows the quantities of matchwoods in column 4 roughly estimated to be available in the forest areas shown in column 2 for match manufacture in factories at the places shown in column 5.

A. (2) Information on the point is furnished in column 7 of the statement.

A. (3) Information on the point is furnished in column 8 of the statement.

A. (4) Information on the point is furnished in column 9 of the statement.

B. (1) The sites considered suitable for the establishment of match factories have been indicated in the statement. The principal advantage of these sites is that they are fairly near the source of supply and that labour is available. Ahmedabad or the neighbourhood of Bombay has been included because there are well established factories there already.

B. (2) Full information is given in the statement enclosed herewith.

B. (3) The following quantities were removed by the various match manufacturing companies from Government forests. Separate figures for splints, veneers and boxes are not available:—

During 1925-26.

Name of match factory.	Quantity in tons of 50 cubic ft.	Source of supply.
Western India Match Co.	1,050 } 208 } 1,321 1 } 62 }	Kanara S. D. Kanara W. D. Kanara and East Thana. Panch Mahals.
Gujrat Islam Match Manufacturing Company			410 }
Santa Cruz Match Works, Bombay	110 } 520	Surat.
Farid Match Manufacturing Co.	200	Surat.
Belgaum Match Manufacturing Co.	190	Satara.
	14	Belgaum.
	2,545	

During the 5 years 1920-21 to 1924-25.

Division Circle.	No. of tons of wood supplied.	Period.	Remarks.
1	2	3	4
Panch Mahals	864	During the last 5 years	....
Surat	40	Ditto	....
Kolaba	270	During the last 3 years	Not supplied before.
Satara	532	Ditto	Ditto.
Belgaum	28	During 1923-24 and 1924-25.	Ditto.
Sind	61	During the last 5 years	....

B. (4) No such factories have been erected on the sites selected by Mr. Troup.

B. (5) The Deccan Match Factory at Karad is reported to have been closed down this year on account of financial losses. The causes are not known. It is reported that the factory was conducted on very unbusinesslike and primitive lines and had not the remotest chance of ever succeeding.

The hand factory in Sind closed down at Rohri owing to a dispute and has not been seriously tested at Bubak.

B. (6) The Western India Match Company at Ambernath which is the biggest factory in the Bombay Presidency is a Swedish concern with an authorized capital of Rs. 75,00,000 and subscribed and paid up capital of Rs. 6,40,300 (up to 8th April 1925).

C. (1) The practice prevailing hitherto was that the match companies were allowed to remove specified match species at fixed royalty rates from specified areas for a fixed period—the arrangement being arrived at by private negotiations. In the case of the Kolaba and Thana forests where the supplies are far short of the requirements of the various match factories, in or near Bombay, looking to them for indigenous matchwood supplies, this system did not work to the satisfaction of the factories concerned. It was therefore decided to dispose of the right to extract matchwood species in them by tender or auction in open competition; and matchwood species in 7,288 acres in North Thana and 6,009 acres in West Thana have actually been so disposed of during the current year at Re. 1-1-0 and Re. 0-9-3 per cart load of material removed from main Felling Series and Pole Series in North Thana and Rs. 2-6-0 per cart load of material removed from West Thana.

A public sale is notified inviting tenders for the exploitation of matchwood species in Kolaba forests.

Some factories obtain a part of their supplies direct from coupe contractors and this system, which is the simplest of all, is reported to be spreading.

C. (2) Royalty varies according to accessibility or otherwise of the extraction area, quality of wood extracted and other circumstances. The rates at present are:—

Dangs	Re. 0-4-0 per cart load.
Panch Mahals	Re. 0-6-0 per cart load.
Kolaba	Re. 1-0-0 per cart load of matchwood species excepting mango.
Kolaba	Rs. 4-0-0 per cart load of mango.
Satara	Re. 0-8-0 per cart load.
Belgaum	Re. 0-8-0 per cart load.
S. D. Kanara	Rs. 6-0-0 per acre for removing matchwood species only.
S. D. Kanara	Re. 1-8-0 per ton of 50 cubic feet solid if trees are felled by selection.

C. (3) Except the right of removing matchwood on royalty from Government forests, no concession has been granted.

C. (4) All the match companies receive equal treatment in the matter of woods required by them irrespective of their nationalities.

C. (5) 50 acres were planted with *Bombax malabaricum* in Kalol Range of the Panch Mahals Division in the rains of 1924-25, and a further area was taken in hand in the rains of 1926-27. In addition to the plantations in the Panch Mahals 75 acres will be taken in hand annually in Thana. For Kolaba a scheme has been laid down to plant an area of 5,400 acres in 40 years. 205 acres will be taken in hand in the coming rains within a reasonable distance of the railway.

If the *Papulus suphratica* is found to be suitable for purposes of match manufacture, a regular yield of 1 to 2 thousand tons can be made available annually from Sind forests, working the forests under a separate working plan on a short rotation.

C. (6) About 1914 the Gujarat Islam Match Manufacturing Company started a plantation of *Bombax* and *Ailanthus* 123 acres in extent in the neighbourhood of Ahmedabad; the largest trees are now about 36 inches in girth.

D. Tadri and Honavar.—The material can be brought from the forest from within 5 miles by carts to the river whence it can be rafted down to the factory. The two places are connected with Bombay by water, being seaports situated at the mouths of rivers. Transport of the material to the factory will cost about 15 to 20 rupees per ton.

Khanapur.—The raw material can be carted to the rail from within 5 miles and thence railed to the factory. Transport will cost about Rs. 15 to 20 per ton.

Kolaba.—The material can be carted from within 20 miles to the nearest railway station or bunder whence it can be brought to the factory. Transport of the material to the station or bunder will cost on the average about Rs. 20 to 25 per ton.

Satara.—The material can be brought to the nearest railway station from the forest from within 20 miles, and thence railed to factory. Transport from the forest to the nearest railway station will cost about Rs. 20 to 25 per ton.

Thana.—The material can be brought by carts from the forest from within 10 miles to a railway station whence it can be railed to the factory. Transport of material to the rail will cost on the average about Rs. 20 to 25 per ton.

Dangs and Mandvi.—Material extracted from within 20 miles of rail can be brought to the railway station at Jharia in the case of the Dangs and to Madhi Railway Station in the case of Mandvi forest. Transport to the railway station will cost about Rs. 20 to 25 per ton.

Godhra.—Material from within 20 miles can be brought to the rail at a cost of Rs. 20 to 26 per ton.

During the monsoon the work of felling, carting and floating either completely stops or considerably slows down; and the factories will have to make arrangements to store sufficient quantities of matchwoods before the rains to tide them through the 4 or 5 months of the monsoon.

Sind.—During the flood season (June to September) no forest work can be carried out. Carts, camels and donkeys can be employed during the remainder of the year for transporting wood from the forests to the river bank. The cost of freight will be as under:—

	Rs.
By road heavy material by cart, say, 2 miles per 100 maunds	8
By road heavy material by cart, say, 1 mile per 100 maunds	6
By road billets by camels or donkeys, say, 2 miles per 100 maunds	6
By road billets by camels or donkeys, say, 1 mile per 100 maunds	4
By river 25 miles per 100 maunds	5
By river 50 miles per 100 maunds	7

E. No figures are available in this office.

F. The information regarding the stage reached by the Match industry is furnished in the note from the Director of Information referred to above.

Paragraph 4.—Regarding the inspection of match factories or sites by the members of the Tariff Board, a tour programme can be arranged by the Government of Bombay if information is given beforehand regarding the areas which the Board intend to inspect.

Summary of a Note prepared by the Director of Information, Bombay, on the Match Industry in the Bombay Presidency.

Prepared by the Department of Industries, December, 1926. In 1916, the Indigenous Industries Committee investigated the Match Industry, and made certain suggestions and recommendations to Government, pointing out that the chief problem to be solved, particularly in the Bombay Presidency was the supply of wood suitable for the manufacture of matches that could hold its own for quality with the imported article, and until this problem was solved, no progress could be made in the development of the industry. The Department of Industries was created in 1918. At that time, there were apparently only Five Match Factories in this Presidency, of which two were in Ahmedabad, one in Kared, Satara District, one in Dharwar, and one in Belgaum. The Gujarat Islam Match Factory of Ahmedabad was the only one working regularly. It was started in 1897 and in 1918 was producing about 800 gross of Match Boxes per day. The other Factory at Ahmedabad was producing about 200 gross pyrotechnic matches. Both were working under difficulties, owing to their inability to obtain suitable wood and the difficulty of getting chemicals owing to the war.

The Import Duty on Matches which had hitherto been 5 per cent. *ad valorem*, was increased to 7½ per cent. in 1920-21 and from the 1st March 1921 to the 28th of February 1922 the *ad valorem* duty was replaced by a specific duty of 12 annas per gross boxes each containing not more than 75 matches. This was again increased to Re. 1-8-0 per gross boxes in March 1922, with a stipulation that each box must not contain more than 100 matches. This heavy import duty gave a definite impetus to the industry, although only four Match Factories were working in the Presidency at that time. A match factory was started as Santa Cruz to import ready made splints and veneers for match boxes and chemicals. This factory started work in February 1923 by making matches by a hand process out of the imported materials. Three or four other Match Factories were established on similar lines, and, in the beginning of 1924, six Match Factories were working, using imported splints and veneers for boxes. These factories made large profits for the import duty of Re. 1-8-0 per gross gave a protection of more than 200 per cent. to this industry, for the cost did not amount to more than about 14 annas per gross, but the selling price was from Rs. 2 to Rs. 2-4-0 per gross. Imported Japanese matches were at the time sold in Bombay at a little less than Rs. 2 per gross, of which Re. 1-8-0 was the import duty. In 1921-22 the total import of matches from all foreign countries was valued at about 200 lakhs, of which Japan supplied matches worth Rs. 184 lakhs. More factories might perhaps have been started but for uncertainty as to the position regarding the protective duty which, it was feared, might at any time be revoked or reduced.

In November 1922 a Swedish Engineer arrived in Bombay from Stockholm, apparently to investigate the prospects of the Match industry in this country.

The manufacturers of matches who use indigenous wood were greatly concerned by the competition set up by the factories started in the suburbs of Bombay and manufacturing matches from imported splints and veneers. There was a considerable fall in the import of matches from 1921-22 to 1922-23, amounting to more than 16 lakhs gross, with a consequent drop in revenue of more than 24 lakhs in the form of import duty at Re. 1-8-0 per gross. It was found that the cost of 50 gross of imported splints and veneers was only Rs. 33 on which the import duty at the rate of 15 per cent. *ad valorem* amounted to about Rs. 5, which was equivalent to 1 anna 7 pies per gross. Imported splints are superior to the splints made from indigenous wood and the indigenous factories, therefore, found it impossible to meet the competition with matches made from imported splints, either in quality or in price.

In September 1923 a Joint Stock Company was registered in Bombay, under the name of Western India Match Company, Limited, with a capital of Rs. 1 lakh. The authorised capital of the Company has since been increased to Rs. 75 lakhs, with a paid up capital of Rs. 6,40,300. The Company was

started with the object of building match factories in Bombay, Calcutta, Madras and Karachi, the machinery and staff to be imported directly from Sweden. The Company acquired land in the Ambernath industrial area, and the factory was started at the end of September, 1924. They started by manufacturing matches from imported splints and veneers, applying the chemical tips in Bombay as other factories in Bombay were doing. The capacity of the factory is now 8,000 gross per day of 10 hours. The evasion of the import duty on matches by importing splints and veneers and manufacturing matches in this country having resulted in a great loss of revenue and having created an unhealthy competition with match factories using indigenous wood, the Government of India levied an import duty of 4 annas 6 pies per pound on splints and 6 annas per lb. on veneers on the 1st of March 1924. In May 1924, the Director of Industries visited the match factories in the suburbs of Bombay and found that almost all of them had ordered out match wood logs from Japan, Sweden, Russia, etc., together with suitable machinery and were busy converting their factories into power driven ones for manufacturing splints and veneers from imported logs. Some factories had very large stocks sufficient for a year or more, and owing to the fall in the Japanese Yen Exchange, it was found still profitable to import splints and veneers from Japan. The original idea of making matches by hand process out of imported splints and veneers was now abandoned, and elaborate and up-to-date machinery was imported for manufacturing matches from imported logs, on which the duty is only 15 per cent. *ad valorem*, or from indigenous wood available. Some factories used imported wood for making splints, as the splints made therefrom are white and strong, and indigenous wood is used for making boxes the colour of which does not matter much, as it is concealed by the covering label. The output of the 14 match factories in the Presidency in 1924-25 amounted to about 40 lacs gross per year.

A new cottage industry has sprung up in the suburbs of Bombay, in making empty match boxes from veneers supplied by the factories now established in Santa Cruz, Andheri, Kurla and Chatkopar, giving employment to several hundreds of people in their own homes. Ready made veneers, papers, labels, splints, etc., are supplied by the factories to the cottage workers who, with the help of their women and children, manufacture empty match boxes, for which they are paid at the rate of Re. 1 per 1,000 boxes. It is estimated that a man can prepare about 800 boxes per day.

Two of the factories in the suburbs of Bombay are entirely owned and managed by Japanese. A small match factory was established at Sukkur and subsequently removed to Bubak in November 1924. The factory is now worked by hand only and Bahan wood is now being tried.

The annual report of the Forest Administration for 1925 stated on the question of the organization for extracting match wood in forests that, of all the new concerns, only one, the Western India Match Manufacturing Company, succeeded in their experiments with such Indian soft woods as were available at hand, and were able to create an organization capable of extracting soft woods from the forests of Kolaba and East Thana in the neighbourhood of their factories. The present position of the industry is undergoing a very keen internal competition in price-cutting between the match factories. The present wholesale price of imported Swedish matches is from Rs. 2 to Rs. 2-4-0 per gross in Bombay, while the imports from Japan are negligible.

Name of	ber of oyed	Manufacture and sale of matches per year since the factory was started up to now.	REMARKS.
1. The Belgium turing Compan		Not given	The factory was closed since 1914 during war and has been recently started again. It could not be regularly worked for want of wood, the forest officers constantly changing prices of wood.
2. The Western In pany, Limited.		1924—182,290 gross 1925—785,950 " 1926—795,300 " Total . 17,68,540 "	.....
3. The National M		1925—72,000 gross 1926—73,000 " Sales . 70,000 "	Up to 31st July 1926.
4. The Asada Mate		1925-26—105,000 " (September to July).	.....
5. The Husacini M		1924-25—120,000 1925-26—170,000	.....
6. The Borivli turing Compan		1925 — 37,200 1926 —106,000	9th September 1925 to 31st Dec- ember 1925. 1st January 1926 to 31st July 1926.
7. The Filwaza Mas a		Not given	.....
8. The Ardheri Matory a		Production. Sales. 1924—420,000 400,000 Gr. 1925—630,000 600,000 1926—450,000 420,000	January to June 1926.
9. The Ahmedabad Factory.		1925— 68,335 67,401 1926— 31,255 21,143	Up to 31st July 1926.
10. The Gujrat Isla facturing Com		1923—180,444 180,444 1924—177,334 176,304 1925—205,331 161,436	.....
11. The Bombay Matory e		1923— 26,900 " 1924—599,700 624,400 1925—660,150 643,000 1926—403,000 363,350	Up to 30th June 1926.
12. The Santa Cru		1924-25—635,500 1925-26—745,500 1926 — 305,400	16th March 1924 to 28th Febru- ary 1925 1st March 1925 to 28th February 1926. 1st March 1926 to 31st July 1926.
13. The Deccan M			
14. The Swadshi turing Compan			

Name of Factory.	Date, month and year of starting the factory.	Capital invested. Rs.	Capacity of factory in gross boxes per day of 10 hours.	Production during last 12 months in gross match boxes.	Average number of hands employed per day.	Manufacture and sale of matches per year since the factory was started up to now.	REMARKS.
1. The Belgaum Match Manufacturing Company, Limited.	1908-09	70,000 approx.	200 gross	3,000 gross about	20	Not given	The factory was closed since 1914 during war and has been recently started again. It could not be regularly worked for want of wood, the forest officers constantly changing prices of wood.
2. The Western India Match Company, Limited.	1st October 1924 .	20,00,000	8000 ,,	13,11,000	1100	1924—182,290 gross 1925—785,950 ,, 1926—795,300 ,, Total . 17,68,540 ,,	.....
3. The National Match Works	8th January 1925 .	50,000	400 ,,	72,000	150	1925— 72,000 gross 1926— 73,000 ,, Sales . 70,000 ,,	Up to 31st July 1926.
4. The Asada Match Factory .	20th September 1925 .	30,000	500 ,,	1,25,000 (10 months from September 1925 to July 1926.)	260	1925-26—105,000 ,, (September to July).	.....
5. The Husacini Match Factory	7th March 1924 .	150,000	1200 ,,	2,00,000	450	1924-25—120,000 1925-26—170,000	.....
6. The Borivli Match Manufacturing Company.	9th September 1925 .	120,000	1000 ,, (per day of 9 hours.)	37,200 (9th September 1925 to 31st December 1925.)	450	1925 — 37,200 1926 —106,000	9th September 1925 to 31st December 1925. 1st January 1926 to 31st July 1926.
7. The Filwaza Match Factory	30th May 1923	Not certain	480 gross	272,000	200 Malvas 300 Titwala 500	Not given	.....
8. The Ardheri Match Company	January 1924 .	400,000	3500 ,,	320,000 (July to December 1925.) 450,000 (January to June 1926.) 770,000	350 in Factory 150 outside 500	Production. Sales. 1924—420,000 400,000 Gr. 1925—630,000 600,000 1926—450,000 420,000	January to June 1926.
9. The Ahmedabad Sultan Match Factory.	15th September 1922	45,000	200 ,,	68,335	80	1925— 68,335 67,401 1926— 31,255 21,143	Up to 31st July 1926.
10. The Gujrat Islam Match Manufacturing Company, Limited.	1st September 1897 .	1,00,000	1000 ,,	205,331	200	1923—180,444 180,444 1924—177,334 176,304 1925—205,331 161,436	.....
11. The Bombay Match Works	27th November 1923	Not a Limited Company and capital fluctuating according to requirements.	2000 to 3233 gross	660,150	600 in Factory 400 outside 1000	1923— 26,900 ... 1924—599,700 624,400 1925—660,150 643,000 1926—403,000 363,350	Up to 30th June 1926.
12. The Santa Cruz Match Works	16th March 1923 .	4,00,000	2500 ,,	785,500	1200	1924-25—635,500 1925-26—745,500 1926 — 305,400	16th March 1924 to 28th February 1925 1st March 1925 to 28th February 1926. 1st March 1926 to 31st July 1926.
13. The Deccan Match Factory	} No information.						
14. The Swadeshi Match Manufacturing Company.							

Imports of matchwood logs, splints and veneers for 1924-25.

		Value.
		Rs.
Logs of matchwood	c. ft. 278,859	4,37,752
Undipped splints	lbs. 276,997	69,898
Veneers for match boxes and empty boxes	lbs. 1,655,924	5,69,588
	TOTAL	10,77,238

Serial No.	Locality.	Species available.	Annual quantity available, in tons.	Site of factory.	Remarks.	The proximity and accessibility of the source of supply of such materials, etc.	Kind and quantity of fuel available.	Available supply of labour for the factory and wages of such labour.															
1	40,000 acres in watersheds of Kandunai Gangavali and Aghanashini rivers.	Most of the species enumerated above and other soft woods not yet tried.	1600	Tadri (North Kanara) Bombay Survey. 1" = a mile, Sheet No. 248.	In 1925-26, 208 tons were removed by the Western India Match Manufacturing Company to their factory at Ambernath in Thana.	Accessible on either side of the rivers within a distance of 1-5 miles. The working expenses will not be more than 8 annas a c.ft. delivered at depot on mouths of the rivers.	About 6,000 tons of wood fuel available annually at each place. The current price of firewood about Rs. 10 per ton (100 c.ft. stack measurement) on the river side depot	Unskilled labour is available in limited quantities at these places at 8 annas to 12 annas per man, 6 annas per woman, and 4 annas per boy, except in Bombay and Ahmedatad where wages are probably considerably higher.															
2	20,000 acres in the watersheds of river Shiravati and its tributaries and portion of Bhatkal.		800	Hanawar (North Kanara) Bombay Survey. 1" = a mile Sheet No. 249.																			
3	From within 5 miles of M. & S. M. Railway in Belgaum Division.	Principal species:— Bombax malabaricum. Odina wodier. Spondias magnifera. Trewia nudiflora. Buchanania latifolia.	1000	Khanapur (Belgaum), a station on M. & S. M. Railway.	The woods from this area are utilized in the factory at Belgaum.	Easily accessible within 5 miles of the M. & S. M. Railway.	Best hardwood fuel available in quantities up to 15,000 tons per annum. Price per 100 c.ft. stacked at Khanapur about Rs. 12.	Ditto.															
4	Kolaba District forests	Principal species:— Bombax malabaricum. Garuga pinnata. Holoptelea integrifolia. Magnifera indica. Odina wodier.	1500	Could be utilized in a factory near Bombay.	In 1925-26, 1050 tons were removed by Western India Match Manufacturing Company, to their factory at Ambernath in Thana District.	The species occur all over the district. The exploitation is partly by rail and partly by water to Bombay. All the forests are within 1-20 miles of exporting station or Bunder.	Plenty of firewood available in Bombay and Ahmedabad.	Ditto.															
	Thana District forests.	Mangifera indica. Bombax malabaricum. Garuga pinnata. Hymenodictyon excelsum. Spondias magnifera Trewia Nudiflora. Odina wodier. Ailanthus excelsum. Ditto.	2000	Ditto.	62 tons were removed from East Thana Division by Western India Match Manufacturing Company to their factory at Ambernath.	Accessible within 20 miles from the nearest railway station.	Ditto.	Ditto.															
5	Dangs and Mandvi forests.	Ditto.	1050	Ahmedabad or near Bombay.	110 tons matchwood were removed by Gujrat Islam Match Manufacturing Company to their factory at Ahmedabad, a distance of 211 miles by rail and an average lead of 10 miles by road from the source of supply. 200 tons were removed by Santa Cruz Match Works to their factory at Bombay, a distance of 173 miles by rail with an average lead of 10 miles by road.	20 miles by cart track from the nearest railway station.	Plenty of fuel available in Bombay and Ahmedabad.	Ditto.															
6	Panch Mahals	Ditto.	800	Ditto.	400 tons of matchwood were removed by Gujrat Islam Match Manufacturing Company to their factory at Ahmedabad, a distance of 82 miles by rail and an average lead of 10 miles by road from the source of supply.	Within 20 miles of railway station.	Ditto.	Ditto.															
7	Evergreen forests of Patan Range in Satara Division.	Elaeocarpus, Oblongus and Symplocos Beldomi.	50	Supplies do not justify the establishment of a factory.	The woods from this area were utilized in the factory at Karad which is now however closed down.	Within 25 miles from the nearest railway station.	Ditto.															
8	6,000 acres Sukkur, Shikarpur, Larkana and Hyderabad Divisions in Sind.	Populus euphratica	2000	Sukkur or Kotni, railway station on N. W. Railway, or any spot on the river Indus between these two places.	In 1924 hand factory was supplied with 41 tons at Rohri and 20 tons at Bubak.	The supply is scattered over a long belt of country extending from Bahawalpur State in the North to Hyderabad in the South.	Large supplies of excellent wood fuel are available everywhere at following rates:—	Labour not plentiful. Wages are high from 12 annas to Re. 1 per diem.															
							<table border="1"> <thead> <tr> <th rowspan="2">Kind.</th> <th colspan="2">Average rate per 100 c.ft.</th> </tr> <tr> <th>At railway depots stacked.</th> <th>In forest stacked.</th> </tr> </thead> <tbody> <tr> <td>Babul .</td> <td>Rs. 10</td> <td>Rs. 8</td> </tr> <tr> <td>Kandi .</td> <td>8½</td> <td>6½</td> </tr> <tr> <td>Lye .</td> <td>6</td> <td>4</td> </tr> </tbody> </table>		Kind.	Average rate per 100 c.ft.		At railway depots stacked.	In forest stacked.	Babul .	Rs. 10	Rs. 8	Kandi .	8½	6½	Lye .	6	4	
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Government of United Provinces.

Letter, dated the 26th February 1927.

I am directed to refer to your letter No. 58, dated January 8, 1927, asking for information on the match industry in this province.

2. Paragraph 3 of your letter. A number of species of wood have been tested and reported to be more or less suitable for the manufacture of splints and veneers but only a few of them are of any practical importance as the rest are either found in small quantities or in localities where their extraction would be difficult, and costly. The following species are worth mention:—

(1) *Bombax malabaricum* (*Semal*) is plentiful in Haldwani, the Terai and Bhabar Estates, North Kheri and Dehra Dun. An annual supply of about 200,000 cubic feet is available. The wood is good for boxes but soon becomes discoloured if kept in the log for any length of time, and splints break rather easily and glow.

(2) *Trewia nudiflora* (*Bhillaur*) exists in North Kheri, the Terai, and Bhabar Estates, Dehra Dun, South Kheri, Gonda and Bahraich. An annual supply of about 20,000 cubic feet is available. It is suitable both for splints and veneers.

(3) *Odina Wodier* (*Jhigna*) is common in miscellaneous forests and is fairly abundant in quantity. It is good for both splints and veneers.

(4) *Caruga pinnata* is common in all miscellaneous forests of the plains and about 20,000 cubic feet is available annually. It is fairly suitable for splints but not for boxes.

(5) *Heloptelea Integrifolia* (*Kanju*) is abundant in Haldwani division and very common in miscellaneous forests all along the tramline. About 20,000 cubic feet or more is available annually. The wood is suitable for inside boxes but rather brittle for outside ones.

(6) *Kydia Calycina* (*Pula*).—An annual supply of about 8,500 cubic feet is available and the wood is fair for splints and good for boxes.

(7) *Magnifera Indica* (*Am*).—The supply of this wood is abundant and it is fair for splints and good for boxes.

Wood for packing cases is available in sufficient quantity. The three varieties, viz., *Bombax Malabaricum*, *Heloptelea Integrifolia* and *Boswellia serrata* are very well suited for the purpose and should meet all demands for packing cases. The latter species is abundant in the Government Dudhi estates, Mirzapur.

3. The species mentioned in paragraph 2 above are found in mixed deciduous forests in localities where transport is easy. For an ordinary factory it is quite possible to obtain timbers suitable for splints, veneers and packing cases from the same locality. If the factory is a big one a comparatively large area will have to be tapped.

4. Cheap fuel is available in sufficient quantities. In fact the branch timbers and waste pieces left from the manufacture of matches might often give sufficient fuel. The cost of the former is from four annas to six annas per maund at site.

5. Unskilled labour is abundant and can be had at a rate of from two annas to seven annas per day.

6. 3 B. Bareilly is the best site for a match factory in the United Provinces, although small factories can be started in most large towns on the railway, which have a sufficient local demand for the finished article, provided satisfactory arrangements can be made for the supply of splints and veneers at reasonable rates. The manufacture of splints and veneers should be as near the forest as possible.

7. The following eight factories were established in these provinces:—

Name.	Location.	REMARKS.
1. North India Matches, Limited.	Bareilly . .	Established in 1910.
2. Lion Brand Match Factory .	Jwalapur near Hardwar.	Started two years ago and closed a year ago.
3. The Sitla Match Factory .	Benares . .	Established in 1922.
4. The Standard Match Factory	Nagina (Bijnor)	Established in 1923.
5. The Bhargava Dipshakha Yantram.	Muttra . .	Started early in 1926 with hand and power machines on a small scale.
6 The Star Match Factory .	Lucknow . .	Started in 1923, closed in 1926.
7 Messrs. Baldeo Prasad & Co.	Mirzapur. .	Started in 1925.
8. The Bareilly Match Factory	Bareilly . .	Work was to start from February 15th, 1927. Up to date Roller's machinery worth two lakhs is installed. Production per day of ten hours is estimated at 1,500 gross boxes.

Nos. 1 and 2 are large factories; the rest are small.

8. Indigenous wood is utilized in factories Nos. 5 and 8 above for splints, veneers and packing cases.

9. Only the factory at Hardwar is on a site selected by Mr. Troup.

10. The North India Matches, Limited, closed down for reasons recorded in the enclosed note. The Nagina factory closed for want of expert advice and of suitable machinery. The Mirzapur factory did not work because of internal troubles of management and insufficiency of capital. The Jwalapur factory closed for the following reasons:—

The proprietor of the factory prepared splints and boxes from *Trewia nudiflora*. The matches were of a tolerably second class quality, but he made no arrangement for storing the timber, 60 per cent. of which became discoloured and generally unsuitable. The Divisional Forests Officer, Dehra Dun, was prepared to sell him trees but the financial position of the proprietor forced him to close his factory. The proprietor moreover was inexpert in the use of chemicals.

11. The Bareilly Match Factory is reported to have a German expert as manager, though it is owned by an Indian. No factory is owned or controlled by foreign capitalists.

12. 3C. No arrangements are in force at present for the sale of trees from Government forests to match factories.

13. As there is no contract no royalty can be quoted, but two annas per cubic feet in the round is probably the least which the Forest Department could charge.

14. A concession for extracting *Semal* timber for the manufacture of matches was granted in 1910 to Messrs. Gavin Jones and Son of Cawnpore who transferred their rights in 1911 to a Company called North India

Timber Limited. This Company subsequently became North India Matches, Limited under the control of Mr. C. T. Allen of Cawnpore.

15. The Question of granting concessions to applicants of foreign nationality has not been considered so far.

16. The Forest Department has undertaken no plantations having match timbers as their direct objective. The department is constantly experimenting with afforesting bare lands, and with replacing existing crops by artificial means. The object is to grow the most valuable species, such as sal, shisham, teak and sain, which can be grown easily and quickly. Semal and a few others which might serve as match timbers have been tried, but without much success so far.

17. No areas have been planted with suitable trees by companies or firms undertaking the manufacture of matches.

18. 3 D. Transport within the forest during the monsoon is impossible. During the dry season transport is by kutchha roads and cart tracks to railway stations. Transport in the chief Semal bearing areas is practicable as the ground is generally flat and not intersected by ravines. Bareilly, which is the best site for a match factory, is a railway centre and is not far from a forest area.

19. 3 E. The estimated consumption per day in the United Provinces is 6,000 gross boxes.

Local factories are so small that their whole outturn is sold locally. One selling agent has taken the sole agency of the production of the Bareilly Match Factory which is estimated at 1,500 gross boxes per day.

20. 3 F. The match industry in this province is still in an experimental stage. Neither the Bareilly Match Factory which is equipped with large up-to-date plant, nor the other factories which are working with small machines can yet be said to have established business on a firm footing. Government often receive applications for assistance, and inquiries for information on the possibilities of the industry; there are also other indications of a desire to start small factories, but the possibility of a power factory owned, controlled and financed by men of the province seems remote. Government have assisted the industry in the following ways:—

- (1) By supplying capital to small factories.
- (2) By giving expert advice on the suitability of woods for matches and of formula for the manufacture of match heads.
- (3) The supply of ready made splints and veneers to small manufacturers in the mufassil. A Government demonstration factory for this purpose is being started at the Wood Working Institute, Bareilly.
- (4) A concession for extracting timber.

21. If the Tariff Board wish to tour in this province, they would do well to visit Bareilly which is equipped with foreign (German) machines capable of producing 1,500 gross boxes per day of ten hours. They might also visit the Dip Shalaka Yantram at Muttra which furnishes an example of the match industry run on a small basis.

Note submitted by North Indian Matches Limited, Bareilly.

The Match Industry in the United Provinces.

In recounting the history of this industry and its initiation in the United Provinces, it would seem desirable and only fair to those who may be attracted by the idea of commencing this or other new industries, that the vicissitudes that may impede promoters should be recorded.

Early in 1910 Messrs. Gavin Jones and Son of Cawnpore were given, as a concession, a guarantee from the United Provinces Government that if

they would start a Match and Packing-case Factory they should be allowed to extract from the Terai and Bhabar Estate Forest not less than one lakh cubic feet of Semul timber annually; such timber to be marked by the Forest Department within a distance not greater than eight miles in a direct line from any station on the Rohilkund and Kumaon Railway such trees to be not less than eight feet in girth: at a rate of one anna per cubic foot in the forest, a rebate of half-anna per cubic foot to be made in due course should the Company fail to show a return of 10 per cent. profit per annum.

No progress was made however until a year later when Messrs. Gavin Jones and Son transferred their rights, in exchange for cash and shares in a prospective Match and Packing-case Company: this Company North India Timber, Limited, was formed and registered in 1911, and although the capital of the Company only required to be 3½ lakhs paid up, there was perhaps a natural difference shown by those who were asked to assist in raising even this small amount; match machinery was obtained from Germany and a complete box-making plant with an up-to-date power installation from England. Bareilly has proved itself to be a most suitable centre for this industry, and an excellent site was hit upon outside the city.

Meanwhile the authorities responsible for the Terai and Bhabar Forest were impressing upon this Company that the concession was dated back to more than a year ago, and that unless activity was immediately displayed in the felling and carting of timber the concession would have to be withdrawn. Actually the promoters had lost no time in obtaining the necessary plant from England and the Continent, and in setting up factories, godowns and offices; they had indeed made much progress with the above, that at this stage they could not risk the cancellation of the concession and they thereupon proceeded to fell and cart timber although their factory was actually not then in working order. The task of extracting huge logs over the notorious Terai and Bhabar country intersected as it is by streams which flood with the least rain in the hills, was one of exceeding difficulty; contractors could not be induced to undertake the felling and carting at anything like a reasonable rate, and it was therefore necessary for the Company to employ a European in supervision, and purchase its own buffaloes and carts. Heavy expenditure inevitably followed, added to which the Company had to reckon the loss involved through their being compelled, in order to save their concession, to cut timber before they were ready for it. Semal in itself is probably one of the most unsatisfactory timbers extant; a tree of eight feet in girth almost always has huge buttresses about 5' from the ground, and a large rotten core: "straight" timber is rather the exception than the rule; it is soft without grain and full of moisture, which evaporate very quickly indeed: the result being that logs when felled, dry up rapidly at each end, and as the log dries, so it turns to powder. It is said that logs may be preserved for some time by being immersed under water; but factories not so fortunate as to be situated on the banks of a river, cannot well afford enormous tanks to hold thousands of cubic feet of timber. One, therefore, of the problems which has faced and still faces the Bareilly factory, is that of obtaining fresh timber supplies in the four months when entry to the Terai forests is not only forbidden but impossible: otherwise storage tanks must be built and heavy expenditure incurred. The quality of Semul timber is such, that in order to satisfy the requirements of the expert match-maker, each and every log, however fresh, has to be boiled before being put on to the Peeling machines. Then again every log before going to the boiling vats must be trimmed of all dry portions and irregularities inclusive of the bark, which in Semul trees, is very thick: the loss in wood on this count is very heavy indeed, generally running to 30 per cent. in average supplies of timber.

To those who have not had the opportunity of studying the conversion of logs into matches and match boxes, it is difficult to convey how perfect the "temper" of the peeled wood must be, in order to obtain boxes which will bend readily to shape, or splints which will not prove either too soft

or too brittle. For this reason too the United Provinces Forest Department have been asked to supply logs for splints from Chakrata. Having arrived at this point, however, in the process of manufacture, the rest is comparatively easy, provided the trained labour is quick and skilful, machines are kept regulated to a nicety, and chemical mixtures are most carefully and constantly controlled.

In pre-war times the Continental market underquoted England, America or Japan, for almost every requirement in chemicals, paper labels, etc. With the cutting off of these supplies, fresh difficulties arose, extra prices had to be paid, and the regularity of shipments was completely disorganised. For a few weeks supplies of matches to India ran small, prices rose by some 40 per cent.: but the Japanese Match Industry promptly availed itself of the opportunity given to flood India with the cheapest possible quality of match, sold at a price which could not have been quoted but for the assistance rendered by the Japanese Government. Authoritative enquiry is now proceeding in regard to how far this subsidizing is extended by the Japanese Government; but there is no doubt that in shipping freights particularly, very special inducements are given. Japanese matches are still to be had in enormous quantities at annas 7 and annas 8 per gross boxes c.i.f. Calcutta, and it does not seem as if manufacturers of matches in India, near Indian ports, would have much chance of surviving, until the Government of India decide to protect them against this unfair competition.

The manufacturer in these Provinces is assisted to some extent by long leads over rail from ports: but here again the up-country manufacturer does not receive the same rates as the importer can obtain on his consignments sent up-country.

At the end of 1923, the Bareilly Match Factory, after a three years struggle was in the following position:—

	Rs.
Total outlay	3,48,091
Profit	Nil
Losses	39,277

It was at this stage that the Company's Match Expert admitted, that with a single plant turning out at most 700 gross boxes per day, even with the establishment and all other fixed charges of the very lowest, an adequate profit could hardly be hoped for. Likewise the Directors found that no profit was to be made in the manufacture of Semul wood packing cases in competition with the bazaar, who were able to meet the bulk of North Indian's demand by a supply of English imported "piece-goods" cases. Thus, when a Burma Company, also having a single output plant, offered to amalgamate with the Bareilly Company, on certain conditions, the offer was accepted.

The position of the Company at this time, August 1924, was as follows:—

	Rs.
Total outlay	3,63,075
Profit	Nil
Losses	68,199

The Burma Company's conditions included the complete removal of the Sawmill and Box-making plant, which had proved itself unprofitable; the writing off of all losses up-to-date (August 1914): a drastic writing down of values, and full depreciation on all machinery and buildings: a matter of Rs. 2,13,600 to be written off.

The promoter of the industry, Mr. C. T. Allen, took it on himself to relieve the Company of the above Rs. 2,13,600 against which there ranked the following assets which he agreed to take over as a set off:—

	Rs.
Sawmill machinery (estimated to realize)	6,000
Refund due by Government (claimed 14th September 1914; still due in part 9th October 1915)	14,020
Book debts	5,770
	25,790
TOTAL	25,790
Leaving a deficiency of	1,87,810

In the new Company now registered as North India Matches, Limited, the shareholders are to receive the equivalent of their holdings in the old Company; Mr. C. T. Allen receiving, in addition to his holding of Ordinary Shares, a nominal holding of 11,250 Deferred Re. 1 shares, which will only benefit after the Ordinary Shares have received a dividend of 6 per cent.: the Burma Company also receive a small number (3,750) Deferred Shares for Goodwill.

As to the future, the United Provinces Government have admitted that the terms of the Timber Concession were unworkable, and they have therefore agreed to revise these. On these new terms depend the future of the industry in so far as these Provinces are concerned. The following is a summary of the terms under which certain other match manufacturing Companies in the east have obtained timber supplies:

Ahmedabad Match Factory.—This Company was granted a concession by the Bombay Presidency for 15 years for the following timber:

Semul (Bombax Malabarioum), Boswellia Serrata, Alianthus Excolsa. The price paid under the concession was two annas per carload of 50 maunds, which works out at 40 to 45 cubic feet for a royalty of two annas, or considerably more than 20 cubic feet for one anna. The above concession expired in 1912, and the Lieutenant-Governor, during a public reference to interested bodies, made the following statement in regard to the Match Industry of that district:—

“As regards the supply of wood, the position is happily simpler, and the powers of the Government of Bombay are adequate. I understand that the present concession expires on the 15th June next. If extension is applied for, rest assured that it will be gladly given.”

Rangoon Match Factory.—The royalty paid to the Government in this case amounts to 50 cubic feet for one rupee, or four pies per cubic foot, for Semul wood.

Belgaum Match Factory.—The following is a significant clause from the prospectus of this Company:

“1. Government have graciously granted free of royalty all the wood required for the factory.”

Travancore Match Factory—which was inaugurated in April 1914.

The industry at this place has received the following assistance from its Government.

1. A large area of eight acres has been granted free for the purpose of establishing the match factory.
2. All wood which is required for building purposes, Factory, Godowns, Manager's quarters, coolie lines, etc., is supplied free of cost; this includes valuable hard woods.
3. The Government undertakes to deliver for the first three years wood for match manufacture at the rate of 3½ annas per cubic

foot, free at factory site; for the subsequent 17 years there is a guarantee that the wood shall not cost more than 4½ annas per cubic foot.

The Bareilly Factory, with its four years bitter experience behind it, is now in a position to detail with the utmost confidence, the only conditions, terms, establishment charges, working charges, etc., etc., with which the match-making industry in this province can successfully carry on. Every phase of the business has been tested, most careful records made, and data are now to hand which enable them to say with certainty whether conditions are such that they can continue with the ultimate hope of success, or whether it is advisable to close down in order to avoid throwing more good money after bad.

The industry, as is generally known, is exceedingly finely cut, and since everything turns on the question of the quality and price of the timber, it lies entirely with the Government of these provinces to say whether the industry shall be adequately assisted, or allowed to die, never to start again. It is for the Government of these Provinces to decide whether they will or will not forego a small and fluctuating profit from the sale of their semul and spruce timber and by doing so determinate or encourage this industry; for it is quite certain that failure will prevent any one else again venturing any decision they may now come to regarding the rates they may charge and terms they may offer, should not be influenced by war time demands from contractors for packing case wood: demands that will cease as soon as trade in piece-goods revives. In course of time too, before serious harm is done the Government of India may be induced to protect this country from the unfair Japanese competitor that is now swamping it.

In concluding this note a statement showing in some detail costing of matches and the selling price that can be realized, will probably be found useful.

Cost of matches per gross, calculated upon a double outturn of 1,400 gross daily for 25 days=35,000 gross monthly.

	Rs.	A.	P.
Chemicals	0	2	6 73
Paper	0	0	10
Labels	0	0	7
Wood	0	2	0 87
Packing cases	0	1	3
Power	0	0	9
Wages	0	0	9 90
Salaries	0	0	7 60
Depreciation, Interest and General expenses	0	1	0
TOTAL COST PER GROSS	0	10	6 10

The present wholesale selling price is Rs. 0-11-10 per gross nett: a higher rate could be obtained for splints made from spruce wood.

Indian Match Manufacturers' Association, Calcutta.

(1) Letter to the Secretary to the Government of India, Department of Commerce, No. 527, dated the 16th October 1926.

I am directed to enclose herewith a copy of the Resolutions, passed at an emergency meeting of the Executive Committee of the Indian Match Manufacturers' Association, held on Thursday, the 7th October 1926, to consider your Departmental Resolution No. 235-T. (14), remitting the Match Industry to the

Tariff Board, a copy of which was forwarded to this Association under cover of your letter No. 235-T. (14), dated the 2nd October last.

I beg to point out that, though the Executive Committee must necessarily be limited to Calcutta Members, we are able to say that these Resolutions, passed by the Executive Committee, are generally approved. You have no doubt noticed that they were promptly published in every important paper in India, including vernacular ones. The leading Calcutta papers, daily as well as periodical, published them in full, and no criticism has reached us or, has, as we know, appeared in any paper after this publicity.

According to your Resolution, the immediate cause of reference of the matter to the Tariff Board is the fall of Revenue on the import of matches, splints and veneers which has been estimated at 40 lakhs of rupees in 1925-26, against the receipt under those heads in 1922-23, and the loss is considered likely to become more serious as the Indian factories overcome their technical difficulties and attain full production.

My Committee, however, pleading for sympathetic treatment of Indian efforts towards industrial development, beg the Government to consider the following points:—

The value of certain imported raw materials, such as, chemicals, timber, paper, gum, machinery, etc., required for the Industry, has increased enormously—as appears from Government Reports,—since the Industry has been run up in this country with the conversion of the import duty on matches from an *ad valorem* to the specific character. The Executive Committee, therefore, believe that the loss of Revenue on imported matches has been appreciably interbalanced by the increased Customs receipts under those heads. They are, of course, fully aware of the fact that, since the conclusion of the European war, there has been a general development of various industries in India, and factories using the above materials have to some extent, contributed to the increase. They, nevertheless, believe that the Match Industry has consumed the largest share of the increased importation. This, of course, cannot be proved in detail in the absence of any definite statistical information; but if the requirements of the Industry were properly ear-marked for at least one year this statement would be well maintained.

The Executive Committee also direct me to refer to the Income and various other local taxes, paid by those carrying on the Industry, which also diminish the loss of Revenue.

They, therefore, believe that the loss is appreciably less than it appears.

It seems from your Resolution that the Tariff Board is to confine its enquiry mainly to the following items:—

- (1) Whether the three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are satisfied in the case of the Match Industry in India, and whether the Industry should be protected.
- (2) If the finding of the Board be in the affirmative, it is to report at what rate the import duty on matches, splints and veneers should be fixed in order to afford necessary protection to the Industry and whether alternative measures of protection could be suitably adopted. It has been hinted in this connection that, if the finding of the Board be in the negative, the Government will be theoretically free to lower the import duty on matches in the interest both of the consumer and their own Revenue.
- (3) The Board is to report as to the extent to which vested interests have been created in India as a result of the present rate of duty; how far these interests require consideration, and what prospects there are of the Industry establishing itself if the present rate of duty is maintained.
- (4) In the latter case, or in case the duty is maintained approximately at the present figure, whether the loss of Customs Revenue can be made up, in whole or in part, by any other appropriate form of taxation of the Industry.

I beg to state that item (1) has already been answered in my letter No. 163, dated the 25th April 1925, from which it will be seen that it is no longer an "assembling industry." The low import of splints and veneers will also lend support to this view.

It remains for the Board to answer item (3) in course of its enquiry.

The only matter that requires fuller reply is in connection with items (2) and (4), although item (2) has been partially dealt with in my letter No. 163, dated the 25th April 1925. These items have in fact a direct bearing on the immediate cause of reference of the Industry to the Tariff Board.

The Executive Committee believe that the Industry has a future, and if allowed to grow under fair conditions, will be a message of hope to the unemployed middle classes. This is perhaps its special feature.

The following are the facts they desire to urge strongly for consideration of the Government :—

The Industry has not yet had time to overcome its technical difficulties and India being new to industrial development some years must necessarily elapse before it can do so.

In its present state it is obviously liable to be crushed by combinations with the advantage of ample capital and long experience.

It was to ward off this danger that the Association proposed an excise on matches, manufactured by factories financed wholly or in part by foreign capital. The danger this Association apprehended very soon appeared in the form of a Trust, establishing factories in several important commercial centres of India. With its combined capital and experience, it certainly has the strength to crush the Indian Industry.

In presence of the actual danger a deputation of this Association waited upon the Hon'ble Members in charge of Finance and Commerce on the 18th of December 1924, and laid the following suggestion before them: That an excise duty of annas eight per gross of matches be imposed on factories, financed wholly by foreign capital, if they yield an output of more than 100 gross per diem. That in the case of factories, financed by mixed capital, the excise be in proportion of the foreign capital employed (*vide* my letter No. 85, dated the 24th December 1924).

In this connection I am desired to state that the above suggestion was based on the following consideration :

Before this foreign competition arose, the Indian firms sold their matches at about Rs. 2-8 per gross on a general average. But since it has arisen, those using the native woods have been compelled to reduce their prices and now they are selling their matches at about Re. 1-9 (instead of Rs. 2-8) per gross, while those using foreign timber are selling at about Rs. 2, on an average. The result has been that a large number of Indian Industries have had to shut down. Now, as is immediately apparent, the reason for our suggesting the eight annas discriminating Excise is that it would approximately re-establish the former position. The effect, in general terms, would be that the consumer would have to pay exactly the same price as now, leaving a reduced, but still sufficient, margin for the distributor. An important incidental effect would be to induce the manufacturers, paying the Excise, to make a larger use of imported wood (selling at Rs. 2-8) as it would be more attractive to the distributor leaving him a higher percentage.

There is another important point that may be usefully mentioned here, namely, that whilst the foreign producers are able to operate in combination, the Indian ones, small, scattered and unorganised, are not. They must, therefore, look to the Government for help. If the help is denied the whole Industry will pass into the hands of foreign Trusts in no distant future.

In view of the above facts the Executive Committee beg to protest most emphatically against the imposition of any direct tax indiscriminately on all factories in India, which, they believe, would increase their danger and strengthen the hands of the foreign competitors to crush the Indian Industries and

would be ruinous from every point of view so far as the interest of the Indians in the Industry is concerned.

The Association, having every confidence in the sympathetic attitude of the Government of India towards Indian industrial efforts, hope, that they will request the Tariff Board also to consider the circumstances of cottage industries, which have to pay a larger cost of production, and are handicapped in various other ways. My Committee believe that the Government will realise the importance of cottage industries as a first step towards the practical industrial education of the people of India.

It is in view of all the above facts that my Committee venture to request the Government of India to refer this as also their previous correspondence on the subject, namely, my letters Nos. 3, 85, 163 and 191, dated the 6/7th June, 1924, 24th December 1924, 25th April and 27th July, 1925, respectively, to the Tariff Board, and to allow them an opportunity to give their evidence to the Board.

Enclosure.

Extracts from the proceedings of an emergency meeting of the Executive Committee of the Indian Match Manufacturers' Association, held on Thursday, the 7th October 1926.

* * * * *

The Honorary Secretary placed before the meeting a letter from the Assistant Secretary to the Government of India, Department of Commerce, forwarding for information a copy of the Departmental Resolution No. 235-T. (14), dated the 2nd October 1926, remitting the Match Industry to the Tariff Board.

ORDERED.—That the following resolutions of the Committee be communicated to the Government of India Department of Commerce :—

1. That the duty on imported matches, splints and veneers be transferred from the schedule of Revenue to that of Protective Duty.
2. That the existing import duty on matches, splints and veneers be retained as it is.
3. That it be pointed out to the Government of India that the Industry has not had time to get over technical difficulties.
4. That the Government of India be informed that the association can but most emphatically protest against the imposition of any direct tax on the local Industry unless on the terms urged by the Association in their Honorary Secretary's letter No. 85, dated the 24th December 1924.
5. That it be pointed out to the Government of India that the Association believe that the fall of Revenue on matches, splints and veneers have been substantially recouped from the enhanced revenue on the import of certain raw materials, required for the Industry, such as, chemicals, timber, paper, gum, machinery, etc., as also from Income and various other local taxes, payable by factories.
6. That the Government of India be requested to ask the Tariff Board to suggest special facilities that may be offered to cottage industries with a view to enabling them to survive in the face of competition of mass production.
7. That the Government of India be approached with a request to refer all previous correspondence on the subject passed between them and the Association, to the Tariff Board.
8. That the Government of India be also requested to allow the Association to send their representatives to give evidence to the Board.

ORDERED ALSO.—That a copy of the above Resolutions be forwarded to the Tariff Board.

(2) *Letter dated the 22nd June 1927, from the Indian Match Manufacturers' Association, Calcutta, to the Tariff Board.*

In continuation of our letter No. 643 of the 27th of May 1927, I beg to forward herewith two proposals, one being an alternative to the other, in compliance with the request made by the members of your Board at a discussion held between them and the representatives of this Association on the 9th of May last.

We are asked first to describe the kind of competition against which our members desire protection, and the manner in which we think it might be given, and to make some suggestions as to the lines on which the legislation, in connection with the excise proposed, might be undertaken so as to make as effective as possible, and prevent evasions of payment.

To recapitulate:—

The Foreign Trusts which have established match factories in India are at a great advantage relatively to purely Indian concerns in the following respects, among others:—

- (a) Financial strength.
- (b) Combination.
- (c) Efficiency due to larger experience.
- (d) Lower cost of production due to larger capital and production and consequent greater use of labour-saving appliances and methods.
- (e) Reduction of overhead charges owing to larger production.
- (f) Advantages in respect to raw materials and machinery which, in the case of this industry, are mostly imported from Sweden.

These advantages, it is believed, reduce the cost of production to the extent of about 8 annas per gross. The Indian concerns, small and scattered as they are, with little combination, cannot compete with these Trusts unless helped by Government till they gain more experience and thereby learn to reduce the cost of production and improve the quality of their products.

The discriminating excise, if imposed, will make it difficult for factories belonging to Foreign Trusts to ruin their Indian competitors or to deprive the Government of its revenue from matches.

It is to the advantage of all the parties concerned to save the Indian factories in the present crisis and enable them to work side by side with those owned by the Trusts; but if nothing is done the Indian factories will be all ruined and the consumers will ultimately have to pay more when the Trusts have no competitors and we shall have the evils of monopoly.

The reason for which some additional measures of protection for cottage industries are applied for, is that, without such protection, they cannot survive in the face of competition of mass production. Their cost of production is high owing to the fact that they invariably buy raw materials at retail prices, and carry on all the processes by hand and, moreover, they cannot sell their produce on credit and get a fair price. In fact, many of them have shut down during the last few months in the absence of any measure to protect from the effect of ruinous price-cutting.

The second proposal we make we believe to be a simpler one, and if accepted it seems calculated to satisfy all parties concerned.

It will enable Government to make the largest possible income from matches, the Indian factories to continue, and will at the same time make it possible for the consumers to continue buying matches at the present market rate. Factories belonging to the Trust too will 'earn' sufficiently well to justify their enterprise in the direction of making this country produce its own matches.

In this connection I refer to our letter No. 527 of the 16th of October 1926, from which it will be seen that these proposals should not affect the consumers who should pay the same price as now, leaving a reduced but still quite ample margin for the distributor.

Another anticipated effect of the excise would be to make the excise-paying factories leave the use of Indian wood to Indian firms and concentrate on the production of matches with foreign wood which command a higher price. The tendency of this might be to cheapen the Indian wood to the benefit of Indian firms, whilst the increased importation of foreign wood would increase customs revenue.

It will be seen that the proposals made by the Association are as simple as they can be made, and are not difficult to be carried out if it is the desire of the Government to help the country to develop industrially in the interests of its people.

The following firms manufacturing matches on cottage scale will welcome a visit by the Board on any date to be previously arranged by correspondence with the President or the Honorary Secretary of this Association:—

1. National Match Factory, 64, Ultadingi Main Road, Calcutta.
2. Bangiya Diasalai Karyyalay, Ultadingi Road, Calcutta.
3. Bengal Match Works, 2, Krishnataran Nasker Lane, Naskerpara, Ghoosery, Howrah.
4. Prasanna Match Factory, Dacca. (If convenient to the Board.)

The following factories are willing to send their representatives to appear before the Boards and to give oral evidence in support of the claims of the Indian Match Industry to protection:—

1. Karimbhoy Match Manufacturing Co., 32, Canal West Road, Calcutta.
2. Pioneer Match Factory, 16, Dum Dum Road, Dum Dum.
3. Bhagirathi Match Factory, 1, Jogen Bysack Road, Barnagore, 24-Pergannas.
4. National Match Factory, 64, Ultadingi Main Road, Calcutta.
5. Bangiya Diasalai Karyyalay, Ultadingi Road.
6. Lucifer, Ltd., 1/1, Gurudas Dutt Garden Lane, Calcutta.
7. Bhowani Engineering and Trading Company, 56, Gauribari Lane, Calcutta.
8. Jalpaiguri Industries Company, Limited, Jalpaiguri.
9. Bengal Safety Match Works and Medical House, Ltd., Rangpur.
10. Prassana Match Factory, 30, Becharam Dewri, Dacca.

INDIAN MATCH MANUFACTURERS' ASSOCIATION.

(Established 1923.)

7, BISWAKOSH LANE, BAGHBAZAR, CALCUTTA, DATED 15TH JUNE, 1927.

Scheme.

It has been suggested that factories financed by Indian capital are unable to continue competing with those financed by foreign capital. The remedy suggested by the Association is that a discriminating excise at the rate of annas eight per gross be imposed on the products of factories financed by foreign capital, the amount of the excise to be raised on the products of those financed by mixed capital being proportionate to the amount of foreign capital invested.

In order that factories liable to pay the excise may not evade payment, it is suggested that the following interpretation of the term "Foreign Capital" be accepted:—

"Any capital not subscribed in India by Indians or people domiciled in India should be treated as foreign capital."

An Indian factory to be exempted from payment of any excise will have to show, in addition, a directorate, at least three-fourths of which will be Indian (including foreigners genuinely domiciled in India).

We suggest that it should be ruled that every factory (excepting cottage industries manufacturing without the aid of motive power) shall make an annual declaration, producing its books in support, to obtain a certificate from the appointed authority, whatever it may be, according to which it will be made to pay the excise or wholly or partly exempted.

In addition to the imposition of the excise proposed, some other steps would have to be taken to enable cottage producers to survive in the face of the competition of mass production, and it is suggested that they may take the shape of:—

- (a) A small bounty for a short period of, say, 5 years, at the rate of 4 annas per gross of matches.
- (b) Financial help by the Government for the formation in each province of a co-operative organisation for buying and selling matches manufactured by cottage industries, and for selling raw materials to all manufacturers. The Department of Industries in each province should offer all possible help, including facilities for extraction of wood and transport, helping also by establishing factories near forests in connection with the above co-operative organisation, for manufacturing splints and veneers to be sold at cost price including the depreciation of machinery, etc., to all who may want them, specially to cottage industries.

As an alternative proposal the Association makes the following suggestion:—

1. It has been said that Government are losing heavily in consequence of the development of the Match Industry in India. The retail price of Swedish matches, which used to be imported in large quantities a few years ago, and which are still being comparatively largely imported, is one and a half pice per box. This means that the retail dealers sell them for Rs. 3-6-0 per gross, whereas the wholesale price is about Rs. 2-12-0, so that there is a margin of 10 annas for the distributors to earn.
2. This is a very big margin, specially for such an important article of daily use. The distributors will, no doubt, feel induced to sell them at a lesser margin. In fact the pre-war price used to leave them a very narrow margin of profit, varying between As. 1-6 to As. 2-0 per gross of imported matches.

It may be suggested, therefore, that the Customs duty on matches be raised to Rs. 1-12-0 per gross; this will still leave them a margin of As. 6-0 per gross, which is undoubtedly ample. Simultaneously an excise of annas 4 should be raised from all factories in India (excepting cottage industries financed by Indian capital) and so 12 annas (i.e., 8 annas discriminating or protective excise we are suggesting *plus* the 4 annas corresponding to the additional import duty) on factories financed by foreign capital. If this suggestion be accepted the difficult question of bounties would not arise because it would give sufficient protection to cottage industries, and, as explained, consumers too would certainly be able to get a box of foreign matches for 1½ pice as now.

Burma Indian Chamber of Commerce, Rangoon.

Letter, dated the 30th November 1926.

With reference to the resolution of the Government of India, Department of Commerce, No. 235-T. (14), dated the 2nd October 1926, entrusting an

enquiry into the prospects of the match industry in India to the Tariff Board, I am directed by my Committee to send hereby their views in the matter.

2. The resolution states that "the first point for enquiry is whether the three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are satisfied in the case of the match industry in India, and whether the industry should be protected." My Committee therefore propose to examine, at the outset, these three conditions seriatim:—

The first condition laid down by the Indian Fiscal Commission is that "the industry must be one possessing natural advantages, such as an abundant supply of raw material, cheap power, a sufficient supply of labour, or a large home market."

The chief raw material in the manufacture of matches is wood, which is available in abundance in Burma as well as in India. My Committee are aware that some of the factories have to rely upon imported wood but it is generally believed that this is due more to the lack of proper development of the forest resources in this country than to the absence of suitable woods in sufficient quantities. So far as my Committee are aware the industry has not experienced any difficulties with regard to the supply of cheap power or sufficient supply of labour although in the present stage of the industry, it has per force to rely to some extent upon imported skilled technical labour. But my Committee have no doubt that in course of time, it will be possible to displace imported technical labour by Indian labour. That there is a large home market for matches can hardly be disputed as they are an article of daily necessity even to the poorest of the population. This can be easily seen from the following figures of imports of matches from foreign countries:—

	GROSS OF HOME.
1920-21	12,398,733
1921-22	13,680,801
1922-23	11,285,740
1923-24	11,243,745
1924-25	7,264,785
1925-26	7,928,522

The marked decrease in 1924-25 and 1925-26 is accounted for by the steady growth of the match industry in India.

The second condition laid down by the Indian Fiscal Commission is that "the industry must be one which without the help of protection either is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country." The Tariff Board are no doubt aware that prior to the year 1922, when the present rate of import duty, viz., Re. 1-8-0 per gross, was levied, efforts made to start the industry in India were not successful and she was entirely dependent on foreign matches. As soon as, however, the rate of duty was raised to the present figure numerous match factories were established in India because the high rate of duty, though levied for revenue purposes, served as a protective duty. The fact that the match industry in India showed a good progress only after the import duty on matches was raised to the present figure is sufficient to show that the match industry is one which is not likely to develop without the help of protection.

The third condition laid down by the Indian Fiscal Commission is that "the industry must be one which will eventually be able to face world competition without protection." My Committee are of opinion that during the brief period of its existence the industry has shown steady progress in spite of the many difficulties, which a new industry has necessarily to face. There can be no better proof of the progress of the industry than the comparatively substantial decline in the imports of matches in 1924-25 and 1925-26 and the progressive decline in the customs revenue from matches since 1923-24, which has necessitated the present enquiry. The Government of India themselves admit that "as the Indian factories overcome technical difficulties and attain

their full production, the decrease in customs revenue is likely to become more serious." My Committee therefore feel sure that the match industry will eventually be able to stand on its own legs and face world competition without protection.

3. My Committee hope that what has been stated above will convince the Tariff Board that the match industry fulfills all the conditions laid down by the Indian Fiscal Commission and is therefore fully entitled to be protected. With this end in view, my Committee strongly urge that the import duty on matches, splints and veneers should be declared as a protective duty and the existing rates of duty on these articles should be maintained. They beg to point out that the industry has not had sufficient time to get over technical difficulties and any reduction at this stage in the present rate of duty on matches will therefore seriously jeopardise the prospects of this important and promising industry.

4. My Committee note that the present enquiry has originated on account of the progressive decline in the customs revenue derived from matches since the year 1923-24. They feel that the Government of India should not attach far more importance to considerations of their revenue than to the development of an industry which not only supplies an article of daily and universal consumption but which has also already given indications of a useful and steady growth. Apart from this, my Committee beg to point out that with the development of the match industry in India, the import of the various materials used for the manufacture of matches, such as chemicals, wood, timber, zinc sheets, starch, labels, printing materials, glue, machinery, etc., must have necessarily increased. They therefore beg to submit that the decline in customs revenue derived from matches, splints, and veneers should have been substantially recouped from the enhanced revenue on the import of articles enumerated above. My Committee also beg to point out that the match factories in India must be paying large amounts as income tax. These factors should therefore be taken into account in deciding how far Government revenues have been actually affected by the present rate of duty on matches, etc., and my Committee feel sure that if this is done, the decline in revenue should be comparatively small.

5. The resolution of the Government of India states in paragraph 2 that "if the Tariff Board decides that consideration must be paid to the industry brought into existence by the present rate of duty and that the duty should be maintained at the present figure, or approximately at the present figure, it will further report whether the loss of customs revenue can be made up in whole or in part by any other appropriate form of taxation of the industry." In this connection my Committee beg to state that as pointed out above, the actual loss in revenue should be comparatively small. My Committee believe, however, that it is not in the best interests of this country to allow foreign syndicates, with vast resources and a long technical and business experience in the line, to start match factories in India behind the wall of protection, as it would be very difficult for Indian industrialists to compete with them. The object of any protective duties, my Committee submit, should be to encourage the development of industries by Indians themselves with Indian capital. They beg therefore to suggest that a discriminating excise must be levied on the products of these factories, which are wholly or mainly financed by foreign capital. Under no circumstances, however, should any burden whatsoever be imposed on factories, run purely by Indian capital and Indian enterprise.

6. In conclusion, my Committee beg to submit that as a result of the present high duty, although levied purely for revenue purposes, substantial vested interests have been created throughout the country. During the last four years, numerous match factories have sprung up, involving a large amount of capital, which are not only employing a large number of workmen in the factories but which have also created work for labourers in forests, cartmen, coolies, etc. The industry on the whole has, during the brief period, shown good progress and promises immense possibilities. As several match factories are using indigenous woods, the forest resources of the country have

been gradually developing, and with this development the revenue of the various provinces from this source is bound to increase. When the match industry is fully developed, it is also possible that other industries connected with chemicals, papers, etc., which are extensively used in the manufacture of matches, will also develop. The Tariff Board will thus no doubt realise that on their findings in the present instance depends the future of many important industries in India. My Committee therefore beg to point out that any reduction in the import duty on matches, which would be tantamount to the withdrawal of protection from the Indian match industry, will be extremely detrimental not only to the match industry but also to the general industrial interests of the country, and beg to suggest that besides recommending the continuance of the present rates of duty on matches, splints and veneers, the Tariff Board should also suggest special facilities to be accorded to this industry which is still in the stage of transition, *e.g.*, facilities for making suitable indigenous woods in sufficient quantities available to Indian match factories, transport facilities, etc. They feel sure that the Tariff Board will not allow the interests of an essential Indian industry being sacrificed to the revenue exigencies of the State.

7. My Committee will be glad to depute a representative or representatives to tender oral evidence before the Tariff Board.

8. To sum up :—

- (1) The match industry fulfills all the conditions laid down in paragraph 97 of the Indian Fiscal Commission and is thus entitled to be protected.
- (2) The import duty on matches, splints and veneers should be declared a protective duty and the present rates of duty should be maintained.
- (3) If the increase in customs revenues from the import of articles used for the manufacture of matches and the amount paid by Indian match factories as income-tax are considered, the decline in customs revenues should be comparatively small.
- (4) A discriminating excise duty on the product of factories, financed wholly or mainly by foreign capital must be levied; but under no circumstances should any burden be imposed on factories run purely by Indian capital and Indian enterprise.
- (5) Besides recommending the continuance of the present rates of duty on matches, splints and veneers, the Tariff Board should suggest special facilities to be accorded to this essential industry, which is still in a stage of transition.

Indian Match Manufacturers Association, Bombay.

Letter dated 29th December 1926.

I beg to send you herewith a representation on behalf of Indian Match Manufacturers Association (Bombay Presidency) for the consideration of the Indian Tariff Board. I also enclose herewith six spare copies of the same. My association will be glad to depute a representative or representatives to tender oral evidence before the Tariff Board whenever the Board desires. I shall feel obliged if you will please let me know when the Tariff Board is likely to visit Bombay and to hear evidence.

For your information I may state that the list of the Indian Match Manufacturing Companies on whose behalf I am forwarding this representation will be found on page 13 and the vested interest that have been created in these concerns are enormous and far more than the vested interest of Indians in this industry in any other Presidency.

I have received a letter from one of the largest Indian Match Manufacturing Company of Calcutta which I enclose herewith with a request that

a note be taken that this company quite agrees with our representation and wishes to be put down as supporting the same.

Enclosure I.

Copy of D. O. letter, dated 23th December 1926, from the Esavi India Match Manufacturing Company, Calcutta, to Hooseinbhoy A. Lalljee, Esq., President, Indian Match Manufacturers Association (Bombay Presidency), Calcutta.

We have gone through the representation to be sent to the Tariff Board and quite agree with it. We shall thank you to include our name therein as one of the interested party.

Enclosure II.

From The President, Indian Match Manufacturers Association
(Bombay Presidency), Bombay, To The Tariff Board, Calcutta.

Representation dated 22nd December 1926.

With reference to the Resolution of the Government of India, Commerce Department, No. 235-T. (14), dated the 2nd October 1926 referring to the Indian Tariff Board for investigation the question of granting protection to the Match Industry in India, I am authorised by my Association to submit on their behalf the following representation for the consideration of the Tariff Board.

The Government of India have instructed the Tariff Board to examine the whole position of the match industry with special reference to three points referred to in their said Resolution. The Resolution states that "The point of inquiry is whether the three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are satisfied in the case of match industry in India and whether the industry should be protected."

The Indian Fiscal Commission laid down the first condition to be that "the industry must be one possessing natural advantages such as an abundant supply of raw material, cheap power, a sufficient supply of labour or a large home market."

The chief raw material in the manufacture of matches is wood which is available in abundance in Burma as well as in India and if some of the factories have to rely upon imported wood it is because of lack of proper development of forest resources rather than to the absence of suitable wood in sufficient quantities. As for cheap power, the industry has not experienced any difficulty. The supply of labour required for this industry is more than what is required and with India it will never be a question of anxiety. It has for the present to rely, to some extent upon imported skilled technical labour but in few years' time this kind of labour will also be available in sufficient number. The third advantage which India possesses naturally is in extensive home market at hand.

The second condition laid down by the Indian Fiscal Commission is that "the industry must be one which without the help of protection either is not likely to develop at all or is not likely to develop so rapidly as is desired in the interest of the country." It was in 1922 that when the duty of Re. 1-8 was levied by the Government for revenue purposes, this high rate of duty served as a protective measure to the match industry and now it promises to develop if there is no unfair foreign competition.

The third condition laid down by the Fiscal Commission is that "industry must be one which will eventually be able to face world competition

without protection." My Association confidently believe that the match industry if allowed to be developed on the lines suggested in this representation of theirs the industry will in a few years' time be able to face the world competition without any protection from the Government.

The Government of India in their Resolution under reference states in paragraph 2 that "if the Tariff Board decides that consideration must be paid to the industry brought into existence by the present rate of duty and that the duty should be maintained at the present figure or approximately at the present figure it will further report whether the loss in the customs revenue can be made up, in whole or in part by any other appropriate form of taxation on the industry." My Association have fully dealt with all these points in detail in this representation which they trust will receive serious consideration at the hands of the Tariff Board.

When the import duty of Re. 1-8 per gross was levied on matches some match-importers and dealers thought of starting this industry in India. As no European experts could be then had their attention was drawn towards Japanese. The Japanese who had by then realised their position at once agreed to come out to India as soon as they were invited and thus this industry was started in the first instance by the help of the expert Japanese.

In the beginning the splints and veneers were both imported from Japan and the only thing that was done this side of India was preparing the chemical mixture and dipping of the splints and filling and releasing the splints into and from frames and its packing, etc.

The Indian labour at first was rather nervous in joining match factories and therefore every inducement was given to them such as payment of daily fixed wages no responsibility whatsoever was fixed for the enormous quantity of wastage which they made owing to the fact that they were quite inexperienced and further they were guaranteed continuity of employment for several months; these facilities encouraged them and at present they are pleased to work in match factories. It also took some time for Indian intelligent workers to learn the mixing of chemicals and working of splints-frame-machines for filling and releasing the same and by now it may be taken that so far this simple splint-frame machinery working is concerned they have acquired a very fair knowledge of it but as regards the mixing of chemicals they have not yet become so very expert as the Japanese and it is hoped they will not take long to pick up the knowledge of the same in a short time.

On the Government levying the duty on veneers and splints these factories imported further wood-cutting machinery and started manufacturing splints and veneers from the logs which they began importing. They also began employing a large number of village women for pasting veneers as is done in Japan and at present hundreds of village women are doing this work in the factory as also at their homes during their leisure hours. A factory employs about 6 to 8 hundred persons.

There would have been no need of importing logs, but it is a well-known fact that upto now no suitable wood has been found for manufacturing splints in India. The factory owners in their own interests have been doing their best to find out wood but upto now they have been successful in finding out wood suitable for veneers which is about 50 per cent. of their total requirements.

It must also be noted that it is very essential that wood for splints ought to be as white in colour as the imported logs because it is an established fact that if these splints are either dark or coloured the consumers do not touch it. It is this fact that has upto now not made the old existing pre-war match factories a paying concern. The foreign competition is so keen that a slight difference in quality which apparently signifies inferiority in any way is sufficient to stop the sale of Indian produce. Therefore so long as wood of the quality for splints is not made available any duty on its import is bound to affect seriously this new promising industry which not only at present supplies work for hundreds of poor persons in many villages but promises to

supply work to thousands in every district in India and supplies a most needed article of every day use, and being a bare necessity.

It has been said that Japanese Government has been doing their best to see that as much less of automatic machinery as is possible be made use of so long as the cost does not go up in any appreciable extent in order that employment be made available to people specially to those in the villages and we have been following the same principle and which we trust our Government will also like to encourage.

We believe that if Government make careful research, wood for splints would be available in India and it is for the Government in the interest of the industry and the forest revenue to do their best to find out such white wood as is required for the manufacture of splints and further to arrange for cheap railway freight as the cost of carriage is the chief factor but until that is done the import of logs must not be handicapped in any way. The Indian manufacturer wants to be independent of foreign logs and therefore he is very anxious that the Government should take up the research work in all seriousness in the interest of the people as also for the purpose of increasing the revenue of forest.

The wood in Northern part of India may be considered suitable for matches but the railway freight at the outset is prohibitive and secondly no move has been made by Government of this presidency for making any investigation for match-wood, as has been done by Bengal Government, who have appointed Mr. Ghose and full report is to hand, and consequently Bengal is decidedly in a better position to use indigenous timber of India than what this presidency is.

The match industry in India is in a great danger owing to foreign competition and the opening of match factories in India by foreigners is like a hanging sword on the heads of Indian population in general and the factories in particular.

There is a powerful syndicate in Europe known as the Svenska Trust mainly controlled by Swedish and Americans whose only aim is to control the match production of the world and to sell their own made matches at a heavy profit where there is no competition. They succeeded in driving out the Japanese competition in India by dumping sales with the result that they were able to starve a large number of Japanese factories and finally taking over some of these works and thus eliminating Japanese competition for ever from India.

They have taken over several factories in Japan the output of which amount to about 50 per cent. of the total output of Japan and therefore it is believed that a special bill has been introduced in the Japanese Diet prohibiting the imports of foreign capital for industrial concerns of Japanese origin, lest even in Japan this foreign Syndicate may not capture their whole trade and thus ultimately make Japan pay heavy prices and be dependent on foreign produce.

This Trust has also started purchasing factories in India and have systematically started reducing the prices of matches manufactured by their works so that the various other works which they have not been able to capture up till now may be forced to be closed down or be sold to them. It is noteworthy that they make no secret of this their policy and one and all works have by now directly or indirectly being approached by them or their agents and clearly told that if it is not sold to them they will soon find that they will have to stop their works. We cannot help saying that we feel that it is only in India that a foreign syndicate can boldly do such things.

They started a match factory at Ambarnath near Bombay under the name and style of Messrs. Western India Match Manufacturing Co., Ltd. with no Indian capital; and in September 1924 they first produced the stuff and sold it at Rs. 2 per gross. They were since then as has been their policy reducing the prices and at present they are selling at Re. 1-5 and Re. 1-6 per gross in the open market while to certain constituents they have been giving private

rebates and the prices at which they are actually being sold to them is about Re. 1-4 per gross. Their aim is to undersell and thus make all the Indian factories lose heavily. They have a very large capital and with an object of capturing the world's match trade it is no surprise that they are following these tactics. It is well-known fact that it is their principle not to sell their produce made in India for any port or town where Swedish foreign matches are being sold. They only sell and under-sell where Indian manufacture is finding a market. Attempts have been made to bind over Indian concerns to sell at certain rates and in certain parts only. These facts clearly establish the case that they are here for the promotion of foreign Swedish match industry.

The activities of this Trust are well and fully defined in an article appearing in "Trade Review" for Asia extracts from which are given below:—

TRADE REVIEW FOR ASIA

for promoting Asia's industrial development and foreign trade relations.

THE FOREIGN DANGER TO INDIA'S MATCH INDUSTRY.

The time is rapidly ceasing to be when India was solely a supplier of raw materials to foreign countries and buyer of manufactured articles. The country is being industrialised, and foreign capitalists, whose only Fatherland is the land which provides the best opportunities for lucrative investment, are not slow in casting their greedy eyes upon the unexplored resources and cheap labour of the Indian continent. The problem has now become extremely acute and Indian opinion is rightly concerned about the alarming growth of foreign private and joint stock companies which not only cause a large drain of India's wealth in the form of interests and dividends but what is more serious, tend to transfer the key-industries of India into foreign hands as well as to prevent the growth or prosperity of a number of industries in which India could be self-dependent and self-supporting.

To this latter category belongs the match industry. It was long believed that Indian match industry was doomed to failure for want of suitable timbers. But during the last few years it has been clearly proved that this is a fiction. India is one of the largest markets in the world for the consumption of matches and she is obliged to import enormous quantities from foreign countries. The most important of those is Sweden; the import from Australia, Hungary, Japan, Norway, Czecho-Slovakia or Finland is inconsiderable in comparison with Sweden. That country has, therefore, a very strong interest in preventing the growth of the match industry in India, for it would be a severe blow to Sweden's largest export trade if India should succeed in manufacturing matches on a sufficiently large scale to satisfy the demands of the Indian market.

The Swedes have, therefore, decided to start their own factories in India a fact that has already aroused considerable indignation in national Indian circles. But the exact manoeuvres of Swedes still seem to be not clearly understood by the large majority of Indians and it will therefore be very instructive to them to read the following facts that have been placed at our disposal by a German match expert who has recently returned from India after many years' stay there who has set up match factories for a number of Indian capitalists and who is sincerely and enthusiastically interested in the development of match industry in India. He says: "It is well-known that India is to-day the best customer for Swedish matches. This is solely due to India being unable to produce her own matches. And this again was and is still due to lack of enterprise and difficulties in obtaining timbers suitable for match manufacture. Lately however things have considerably improved. Since over two years the Indian match manufacturers have been protected by an import duty of Re. 1-8 per gross of boxes of matches. As the cost price of good matches made in India is somewhat below Re. 1-8 per gross it is obvious that a good return for the capital outlay is assured and

there is no doubt a fair opening for match industry in India. In fact some of the Indian business men are at present very keen on starting match factories in India and lately some well equipped factories have been started. It is almost certain that in course of time India will be able to produce her own matches and then the import of foreign matches chiefly of Swedish make will stop automatically. Sweden or to be quite correct the Swedish American match combine is watching this development with keen interest. They have already launched an offensive against the Indian Match Industry on a large scale. They did this in such a cunning way that most of the Indians have been taken unawares. It is worth while to go a little further into the practice of the said Combine. Above all one thing is certain; the real aim of the said Match Trust is to monopolise the world's match trade. The means employed by the Trust to attain this aim are numerous. According to circumstances they employ fair or foul means. To be just it must be admitted that they employ fair means first. If unsuccessful they will use foul means unscrupulously. It is impossible within the available space in this paper to depict the various ways and means employed by the Trust. Generally the practice employed is as follows: After having undersold the matches manufactured in the country for a considerable time (the English call this dumping) they approach the factories with a proposal to buy the whole business. As a rule the price offered is a decent one. Of course the owner will be bound over not to do any more business in matches. Very often after having bought the factory it will be closed down. Then of course the import of matches must commence again. Quite a number of match factories in Europe and elsewhere have come under the influence of the Trust and a great number have been bought by the Trust.

What means is the Trust now employing in India? Before it must be perfectly understood that the Trust is out for killing the existing match factories in India in order to obtain their real aim that is to govern the world's match trade. To attain this aim this Trust has started a factory at Ambernath near Bombay and another in Calcutta. Both these factories are already working and an extensive underselling of Indian made matches has already begun. In addition factories at Karachi and Madras are in course of construction. Moreover two existing factories one in Colombo and the other in Rangoon have been bought by the Trust. Further some of the important factories in India have received very favourable offers, fortunately so far without success. They have also opened the Match Manufacturing Supply Company in Bombay. This Company besides supplying paper and chemicals for match manufacture (most of Swedish make) is acting as agent for Messrs. Gerh. Arehm, Stockholm. The last named firm is supplying match making machinery but lost its independence some time ago or in other words it belongs to Trust. The said supply Company comes as a wolf in sheep's clothing to the Indian business man. They offer materials cheaper than any continental or English firm. Indeed this Company undertakes to equip factories almost for nothing. They offer to take payments after years. Why? Any man with a reasonable amount of business brain will feel sure that there must be a 'fly in the ointment' somewhere or as the Indians say "Kuchh dal men kala kala hai." And so there is. If, for some reason or other, the payment is not forthcoming after the agreed period the Trust will take over this factory without much ado and thereby strengthen its position in India more and more. Most of the readers of this paper will say there will be comparatively few Indians who will go into this trap. This is not so. It may be mentioned here that lately the Government of Bihar and Orissa has been trapped in the aforesaid way. There in Patna the Swedish American Match Combine is erecting a small demonstration factory on behalf of the Government. By allowing that the Government of Bihar and Orissa has assisted the Swedish Match Trust and has acted against the interest of the country and people. It must be mentioned here however that the Government did not know at the time that the Match Manufacturing Supply Company and the Swedish American Match Combine are identical. Unfortunately only a few Indians are acquainted with this fact.

During the last year a few big factories have been started near Bombay by enterprising Indians. These factories import suitable wood in logs from Siberia. Their matches are finding a ready sale. The Swedish factories in Ambernath and Calcutta import wood in logs also. There is no import duty on wood in logs. Now the Trust is feeling the competition of these factories and in order to get rid of them they urged the Government to put a high duty on wood in logs also. They did not do this in a straightforward way but got behind some officials and other influential people. Fortunately the Bombay business men are wideawake and the attempt of the Trust failed. If they had succeeded the Indian factories besides the Swedish factory near Bombay would have had to close down. As the mentioned Indian factories are considerably larger than the Swedish factory this would only mean that the Trust is getting nearer its real aim that is to govern the world's match trade. The last mentioned move of the Trust was a very clever one and quite a number of Indians were unable to see the real object of the Trust. The Trust is keeping up its propaganda regardless of the expenses.

It will be of interest to mention a few items about the Trust. The capital of the Combine is 180 million Swedish Kronen (about 15 crores Rs.). On the board of directors are names like Percy A. Rockefeller, Samuel F. Pryor, H. Havenmeyer, John McHugh of the Mechanical-Metal-National Bank, F. L. Higginson of the Bank Lee Higginson & Co., New York. Chairman is the Swede, Ivar Kreuger.

There is no doubt that, if the Trust is able to monopolise the World's Match Trade the consumer will have to suffer. Because after attaining their aim, they will fix the price at such a level that they will more than recover their former expenditure. Moreover, it is of no interest to Indians if their industries are organised solely, with foreign capital.

Let us hope that India will be among the countries where the Trust is unable to secure a footing.

Now this same Mr. Kreuger, the director of the Swedish Match Company has been clever enough to publish a review of the World's Match Industry with the special object of throwing sand into the eyes of the Indian people. After showing how Sweden has been able to overcome the difficulties caused by the War and to compete successfully in the world's market, he says:

"It is easy to understand however that if the Swedish match industry is to retain its leading position it cannot rely only on the Swedish factories and for this reason the Swedish Match Company decided a few years ago to go in for a programme of taking an interest in match factories abroad on a very large scale. We have now in operation newly built factories in India, one in Bombay and one in Calcutta, and we are building two new ones, one in Karachi and one in Madras, and we have acquired to establish match factories in Colombo and Rangoon. It is not our intention to try to monopolise the Indian match trade and we have decided to seek the co-operation of prominent Indians in our Indian undertakings."

The facts stated above are almost correct and although it may seem that some machinery manufacturers of Germany have published these facts in order to get machinery orders which by the way may be the object of the writer but the facts written about the activities of this Trust and the manner in which they have been carrying on their work in India and the ultimate objective stated therein are so far as the Indian match industry is concerned quite clearly stated and therefore we are not repeating again all these facts and objects but have given a substance of it so far it concerns us for very careful and serious consideration. We wish to add further the following facts which will implicitly prove that this Syndicate is so seriously out to capture this trade that they are not only going to dump and undersell but they are going to use their financial powers in attempting to capture all the manufacturers of chemicals and machinery and thus entirely paralysing the match industry in India.

At present they are controlling important works of Chlorate of Potash. The Chlorate of Potash industry was with France and now in post-war times it has also been established in Germany. There is a Syndicate formed by which all the French and German manufacturers have joined hands for selling purpose and according to our report this syndicate is controlling the sale of Chlorate of Potash.

Another important ingredient for manufacturing matches is Amorphous Phosphorus which has practically the only use in matches. This article is also in a trust and it is said that the Svenska Trust are controlling the same. All the important manufacturers such as Messrs. Albright and Wilsons of England are in the trust and there is only one factory which is out of trust. This factory has been likewise asked to join the trust but since it has running orders from India it has not joined the trust as yet. This being the case the different factories in India are approached by the Svenska Trust and inducements have been put forth in their way to give a running business to their own concern the Messrs. Match Manufacturing Supply Co., Ltd. so that the factory which is not now in the syndicate may be starved out and be forced thereby to join the trust.

Thus their motive is clear; they may supply for the time being different works with the stuff of Amorphous Phosphorus and after taking over the only factory which is out of the Syndicate they may as well starve the local (Indian) factories and as this article has practically the only use in matches the factories have either to close down or join the trust on their own terms and dictation.

It will be interesting at this stage to recall as to how this Trust forced the Japan Match and Chemical Factories to join it. Some time back a representative of the Diamond Match Co. of America which is controlled by a certain financial magnet went to Japan and carried on discussion with Japan Match Manufacturers to join the Syndicate. The Japanese works wanted to have their own terms of business because the factories had enough orders from India then and the negotiations did not result into any success. This Diamond Match Co. of America are joined in Swedish concern and have formed into Svenska Trust.

Since the Japanese works did not join the Trust therefore the root of their orders which was India was caught and as Indian business was only done on indents they began bringing consignments on their own accounts and began dumping sales with the direct result that by underselling Japanese works which began to starve owing to demand falling off from the Indian market with the ultimate result that some of them had to join the Trust. To-day three important companies of Messrs. Nippon Match Co., Inoaya Match Co. and the Kobayashi Match Co. are gone into the Trust. Thus their aim was to starve the works and backed by huge finance and heavy financial resources they are practically in a position to command.

There was one Amorphous Phosphorus Factory in Japan which they have bought over and at the outset they stopped exports to India and sold only to the match manufacturer in Japan. But Japanese factories soon found out that their ultimate objective was to starve their works without this important chemical and that is why they started another factory with Mr. Takigawa at the head and have started making their own Phosphorus and consequently the Trust could not succeed in taking up the other factory and starve the remainder of the factories. It is also interesting to re-call the further activities of this Trust as are now carried on in Europe and they are as under:—

The Trust is now arranging to take over the match monopoly supply of French Government as per article appearing in August 1926 issue of European Finance page 187 extract of which is as under and which we submit requires a very careful and serious consideration as to how powerful the syndicate is and for what they are clearly out,

EUROPEAN FINANCE

London, August 25, 1926. Page 187.

The Swedish Match Trust has put proposals before the French Government for taking over of the French Match monopoly. The French Government is stated to look favourably upon this offer, inasmuch as the Swedish Match Trust is willing to pay a lump sum down in respect of the concession immediately upon signing the agreement instead of making of annual payments. The Swedish Match Trust is also endeavouring to obtain the match monopoly in Czecho-Slovakia. The Trust was founded by Mr. Ivar Kreuger, who succeeded at the end of the late war in uniting all the Swedish Match Factories in one combine. Endeavours were then made to enlarge the scope of the combine by converting into an international Trust, and the necessary capital for this purpose was obtained from American financiers. In 1923 the sister undertaking of the Svenska Tandsticks A. B. (Swedish Match Co.), the International Match Corporation was established and soon became the focus of the world's Match business. At present it is not so much the quality of the matches produced by the Trust as the enormous capital it commands that give it a leading position amongst the world's most important undertakings. It is estimated that the capital of the Trust amounts to about Kr. 800,000,000. Armed with powerful weapon conferred by its huge capital the combine has succeeded in securing control over half the total match production of the world. In its annual report the Trust stated that the undertaking possesses some 150 factories the estimated value of which is about Kr. 270,000,000. In these factories over 50,000 hands are employed.

Their next move is to take up Messrs. Plama United Match Manufacturing Co., Ltd. of Czecho-Slovakia known as Solo and Helios Works and also Nitedale Works of Norway and they have therefore tied down important dealers who are selling their own goods prohibiting them from importing matches of these factories and the direct result is that Messrs. Nitedals have now joined the Trust and it will not be a wonder if Messrs. Plama United also join them hereafter.

Further they have been negotiating with the Russian Government for a monopoly for taking over the timber for Japan and India and have actually made offer but they have not succeeded so far.

Endeavours have also been made according to our report to monopolise frame sticks and other articles from Japan as well.

It is therefore the only aim of this concern of the Trust is to see that no other factories can exist outside the Trust and with this motive in view they are working. We therefore specially require protection against this foreign Trust of such a nature.

This Svenska Trust is also controlling various manufactures of match machines and have captured some Swedish and German Works and further according to our report other important German Works have also been captured by them.

This Svenska Trust have started a couple of factories for manufacturing matches in other parts of India like Bombay and have also bought one existing factory in Rangoon which are worked entirely by automatic machinery and no Indian capital is invested therein nor do the Indian labourers get enough employment up till now in them and it is their objection to reduce as much Indian labour as possible; while on the other hand the Indian Match Factories are utilising as much manual labour as possible thereby giving employment to several thousands Indian labourers although by doing so their cost of production comes to about 4 annas more gross and they have to sell at cheaper rates than those of the Syndicate because the finish of their produce is not exactly like that of the machine-made goods thus the Indian factories are further handicapped in this respect as well.

Indian factories therefore should be given adequate protection against the foreign Syndicate which employs a limited number of labourers and in which hardly any Indian or even a Britisher is employed on a responsible post.

From the table of prices herein annexed it can be seen as to how this Syndicate has been systematically reducing the prices to achieve their object and thereby forcing the Indian factories to lower their prices of their own production.

At present by reduction in the rates this important industry in its very infancy has come into a perilous condition and is threatened with total extinction in a very short time to the great detriment of the people of this country specially the village workers and we hope that it will not go down in history that a national industry of a necessity of life which came into existence was nipped in bud by foreigners and that Government were not able to protect it.

Match Chemicals.—Indian factories have to depend for the following ingredients and chemicals for their requirements.

They are as under:—

FROM EUROPE

Chlorate of Potash.
Amorphous Phosphorus.
Sesqui Sulphide Phosphorus.
Glue.
Paper.
Zinc Sheets.
Aspen Timber.
Other Chemicals.

FROM JAPAN

Russian Timber.
Glue.
Some Chemicals.

India at present provides all the labour required and a good deal of wood. She is dependent on foreign countries for articles stated above which she has to import by paying a duty of 15 per cent. and the machinery and the other parts thereof are also imported on which also a duty has to be paid.

As already pointed out this industry requires at present some foreign ingredients and principally articles like Amorphous Phosphorus, Chlorate of Potash and Zinc sheets. These have practically the only use in a manufacture of matches and factories which produce these chemicals and which are outside the Trust are attempted to be starved into submission or are required to sell their produce to the Syndicate only, or if they wish to exist they must join the Trust. The main object of the Trust is to under-quote and under-sell even these articles in India with the ultimate result that they alone having a world-wide organisation can maintain and have free field since in case they undergo any loss in India the same is recouped in different parts of the world and thus ultimately they alone can remain in the field as match manufacturers, matches machinery makers, proprietor of works producing chemicals essentially required for match manufacture.

Duty.—Government have stated that the duty they have levied was purely from a financial point of view and when the expected duty is not realised they have put forth the matter in the hands of the Tariff Board, but they have not considered the point that although the duty apparently has decreased in reality the Government is not a great loser by having brought in a much needed industry into existence and further some of the foreign materials which are used in the manufacture of matches such as:— Chlorate of Potash, Amorphous Phosphorus, other chemicals, Glue, Timber, Paper, and Zinc sheets, being not made in India and also the machinery

used for match making and the parts thereof, these are all imported from abroad and custom duty is paid on the same at 15 per cent., even starch which is required for pasting the match boxes is made from Dutch farina which is imported by some factories from Holland and there are so many items that taking collectively on these materials Government can barely be considered as a loser since it is dead certain that all these articles were never imported before in such big lots and their imports have increased because of the opening of these match factories in India.

Secondly the income tax and other incidental taxes which Government will be getting from the factory owners and their employees can be attributed to only the fact that these match factories have been started in India.

Thirdly if Government is losing heavily on duty it is because of the transshipment of matches to native ports in India and specially the Native States since the duty charged by the Native States is not paid to the British Government directly.

Fourthly at present hardly one-third of the total consumption of matches in India is manufactured in India and the duty on the chemicals and raw materials required for the produce of this quantity is paid to Government. Therefore if the Government revenue has gone down a great deal it is probably due to the fact that a large portion of the remaining two-third consumption which is as a matter of fact imported into India finds its way into India without paying the duty at Rs. 1-8 per gross and therefore we believe that it is in this direction that the Government should cause an inquiry to be made if there is a great deficit in revenue.

Transshipment.—The duty which the Government is losing is on consignments which are transhipped from Bombay, Karachi, and other ports.

One of the reasons for a deficit in the customs duty can be attributed to the cause of transshipment which has been according to our information somewhat abused. It is said that from the year 1922 to 1924 the various consignments of matches have been transhipped from Colombo to Cutch and other states where only 7½ per cent., duty is charged and from there the goods were going *vid inland* to various railway stations of Kathiawad and to the whole of Kathiawad, Gujarath and as far as Berar but this has been stopped to a great extent recently.

It is also said that for Jamnagar and specially for Bedi Bunder the goods in a large quantity are going transhipped from Bombay, Karachi, and Colombo which can be ascertained from the figures inquired at proper sources where apparently the duty at Re. 1-8 per gross is charged but it is doubted by some whether it is in reality a fact.

In the same way there is a port Navlakhia in Morvi State where also large consignments of goods are going for transshipment and it is said and believed that matters are also managed there in the same way as they are at Bedi Bunder.

This doubt commands more serious thought and consideration from the further facts that the goods which are bought from Bombay dealers for transshipment to these places are purchased at about Re. 0-15-0 per gross and it costs annas 3 more per gross including the reasonable profit of anna 1 per gross and if the duty of Re. 1-8 is added it will actually cost at Rs. 2-10 per gross whereas the goods are being sold at price of Rs. 2 to Rs. 2-1 per gross throughout the whole of Kathiawad and Gujarath; the matches made in Sweden and Czecho-Slovakia are supplied to these parts, *via* Bedi Bunder.

Even at important places like Ahmedabad and Bhawnagar the goods from Bedi Bunder are sold and are said to be saleable at favourable prices than those sent from Bombay. Bhawnagar State has also the same transshipment rights but the goods are not imported there because it is said full duty is charged there.

There is one port known as Bangrole in Kathiawad where also the goods from Sweden sent on transshipment are welcomed while the goods of foreign

origin on which the actual duty has been paid in British India or the goods made in British India are subject to a duty of 50 per cent. so that the buyers have to perforce purchase transhipped matches of foreign make.

At Verawal a similar state of things exists but there the duty varies from 35 to 50 per cent. levied specially on matches sent from Bombay duty paid or if they are Indian made.

At Porbunder the duty on Indian matches or on matches on which the duty has been paid in Bombay, the duty charged is annas 12 per gross, in other words the merchants are forced to bring the transhipped matches in this port also.

At Jamnagar (Bedi Bunder) and Navlakhia (Morvi State) Swedish and other foreign matches are sold at only couple of annas higher than the Indian made matches and consequently Indian made matches cannot be sold in these places.

If foreign matches for which the duty has been paid in Native States are not subject to any duty in British India while the goods manufactured in British India or foreign goods for which the duty has been paid in Bombay (British India) is subject to heavy surtax and duty as stated above. It is quite clear therefore that while on the one hand Government will be losing duty, the Indian industry on the other hand will also be handicapped with surtax and duty and the foreign goods will be more and more imported there.

From the above stated various points it could be seen that the foreign matches which are coming in large quantities give no duty to British Government and this may be attributed to the abuse of transhipment rights only and the remedy is that the transhipment of the goods should only be allowed in such quantities as are actually required for the actual consumption of the States where it is transhipped.

It is also said that Jamnagar State has made an annual contract of 3,000 cases of Swedish matches to be brought by transhipment from Colombo if so then the Government cannot get duty thereof nor could they have any knowledge of it.

All the above facts about native ports and Native States are stated from reports which the merchants have been circulating but it is for the Government to make due inquiries and find out how much truth there is in any of these statements. If an inquiry is made as to what is the real consumption of the different Native States and what have been their imports directly or indirectly, we believe the true facts will be out and the Government can then do what they may deem necessary to protect the losses in duty if there is a loss to them on comparison that still only one-third of the total consumption of India is produced in the country while two-third is being imported from foreign country.

From what has been stated above it will convince the Tariff Board that the match industry fulfils all the conditions laid down by the Indian Fiscal Commission and is therefore fully entitled to be protected. With this end in view it is strongly urged that the following steps should be taken to allow the new industry to be developed along right lines:—

1. That the present import duty of Re. 1-8 per gross should be declared as protective duty and should be maintained at the same rate as this industry if allowed to be developed on right lines will soon be in a position to get over technical difficulties and as the industry provides employment to thousands of labourers.
2. That special protection should be given against the foreign competition of the Syndicate which is not a *bonafide* concern and whose activities should not be allowed to be successful. It is therefore suggested that a discriminating excise duty on the product of the factories financed wholly or mainly by foreign capital should be levied but under no circumstances any burden

should be imposed on the factories run purely by Indian capital and Indian enterprise.

3. That proper control should be exercised on the imports of foreign matches into Native States by transshipment methods which are likely to be resulted into a deficit in the custom duties by the transshipment right being abused.
4. That handicaps in the shape of extraordinary duties levied by Native States upon matches manufactured in British India should be removed.
5. That suitable wood which we believe exists in abundance in Indian forests and which is the chief raw material in the manufactures of matches must be made available to the match manufacturers by the Government taking up the research work in all seriousness and by affording every facility for its transport by cheap railway and steamer freight.
6. That in course of time if proper encouragement is given by the Government, it is believed that even the chemicals and paper required in the manufacture of matches will be available in India and the match industry will be in a position to cope with the full demand of the country in a few years' time so it should be allowed to be developed on right lines, and the industry be treated as a National Industry as it supplies an every day's necessity of life.

The List of Indian Match Manufacturing Factories in Bombay Presidency:—

1. Andhery Match Factory.
2. Santa Cruz Match Works.
3. Bombay Match Works.
4. Swadeshi Match Factory.
5. National Match Works.
6. Asada Matches Factory.
7. Borivli Match Works.
8. Titwalla Match Factory.
9. Deccan Match Factory.
10. Belgaum Match Factory.
11. Husein Match Factory.
12. Sultan Match Factory.
13. Guzerat Islam Match Factory.
14. Thana Match Factory.

Rates at which factories sold their stuff to wholesale dealers in Bombay:—

Per gross.

NOVEMBER 1923.

Indian made matches at . . . Rs. 2-1-0.

APRIL 1924.

Santa Cruz, Andhery & Ors. Re. 1-11-6 to Re. 1-12-0.

NOVEMBER 1924.

Swedish Syndicate (Western India). Rs. 2.

Indian Re. 1-11-6 to Re. 1-12-0,

MAY 1925.

Swedish Syndicate (Western India).	Re. 1-14-0.
Indian	Re. 1-11-6 to Re. 1-12-0.

August 1925.

Swedish Syndicate (Western India).	Re. 1-13-0.
Indian	Re. 1-11-6 to Re. 1-12-0.

OCTOBER 1925.

Swedish Syndicate (Western India).	Re. 1-13-0.
Indian	Re. 1-11-6 to Re. 1-12-0.

APRIL 1926.

Swedish Syndicate (Western India).	Re. 1-10-6.
Indian	Re. 1-8-6 to Re. 1-9-0.

AUGUST 1926.

Swedish Syndicate (Western India).	Re. 1-8-0.
Indian	Re. 1-5-6 to Re. 1-6-0.

NOVEMBER 1926.

Swedish Syndicate (Western India).	Re. 1-6-6.
Inducement and rebates given by Swedish Syndicate.	Lot of 25 cases Re. 1-6-0. " 50 " Re. 1-5-6. " 100 " Re. 1-5-0.
Indian	Re. 1-2-0 to Re. 1-5-0.

Northern India Chamber of Commerce, Lahore.

Letter dated 22nd January 1927.

I am directed to refer to the Press Communiqué issued by you under date the 29th November 1926 on this subject, copies of which were forwarded to this Chamber with your No. 897, dated 30th November 1926, and to set out hereunder the views of this Chamber on the question. It is regretted that it was found impossible to forward the views of the Chamber by the 31st December as requested, and trust they will now be taken into consideration.

To refer in order to the points set out in paragraph 2 of the Communiqué, this Chamber is of opinion that the three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are fully satisfied in the case of the match industry, and that the industry should be protected. The first condition is that "the industry should be one possessing natural advantages, such as an abundant supply of raw material, cheap power, a sufficient supply of labour, or a large home market," and Northern India satisfied each of these requirements. Wood is, of course, the main raw material, of which suitable varieties for splints and veneers are plentifully available in the forests of the Punjab and Kashmir. The necessary chemicals and paper, which constitute about 20 per cent. of the cost of the finished boxed match, are at present mostly imported, but India possesses great possibilities in this direction, and the growing demands of the match industry must automatically

stimulate the development of the chemical and paper industries. The raw material for these two industries exists in abundance, and once a substantial demand is established, India would be able to supply, at least, her own requirements of paper and chemicals within a few years. Reasonably cheap power, such as required for the match industry, exists at present in Northern India and Kashmir, and when the Mendi Hydro Electric Scheme begins to function in the near future, extremely cheap industrial power will be available. Labour is plentiful, and although superior technical advice is mostly non-Indian at present, and highly paid, Indians are being taught in the various factories, and quickly acquire the necessary skill. A very large home market also exists, which is at present almost entirely held by foreign manufacturers.

The second condition laid down in the Report of the Fiscal Commission is that, "the industry must be one which without the help of protection either is not likely to develop at all, or is not likely to develop so rapidly as is desirable in the interests of the country." Since 1922 when the present import duty, which can be ranked as a protective duty, was imposed, the import of matches into India has decreased from 1,36,80,801 gross in 1921-22 to 79,28,522 gross in 1925-26, a decrease over 57 lakhs gross. There is nothing to show that the consumption has decreased: the inference to be drawn from these figures is, therefore, that the import duty, acting as a measure of protection to the industry in India, has enabled that industry to increase production in India by about the 57 lakhs gross above referred to. The match industry was started in India about thirty years ago, and made small progress until 1922-23, and while some of the recent progress made must be put down to the overcoming of technical difficulties, and the greater availability of Indian capital for industrial purposes, the great rise in Indian manufacture is due mainly to the imposition of the present high rate of import duty in 1922 which has acted as protection to the industry. It must be pointed out, however, that the Indian industry using indigenous timber would have been still more firmly established by now, had it not been for systematic and continued evasion of duty on matches first by import of splints and veneer and latterly by the import of match logs on which no special duty has, as yet, been placed.

The third condition laid down by the Fiscal Commission is that "the industry must be one which will eventually be able to face world competition without protection." While the quantity of matches manufactured in India has arisen very rapidly during the last few years, the manufacture from indigenous timber represents only a portion of this increase. In order to enable the Indian match industry to eventually withstand world competition, it is necessary to develop the use of indigenous timber, which is, in the opinion of this Chamber, the slower but for surer process. There is no doubt that steady work with indigenous timber will enable considerable economy to be effected in the present cost of manufacture, within a few years, and that the quality of the finished Indian match would be considerably improved. The prospects of securing these ends are very encouraging in Northern India, and this Chamber is therefore of opinion that after a few years' protection, on the lines laid down in the summary to this representation, the match industry will be established on a sound enough basis to compete successfully with foreign manufacturers in the home market, and possibly overseas, without further need of protection.

The second point referred to in the communiqué is regarding the protection required, and the methods by which such protection should be given. This Chamber is of opinion that the present rate of import duty on matches, splints and veneers should be retained and transferred to the schedule of protective duties, and that an increase of duty on imported match logs be imposed in order to protect the manufacturer in India using indigenous timber. It is here necessary to point out that the import duty of Re. 1-8-0 per gross on finished matches was imposed in 1922, for revenue purposes, and that ever since that time a systematic and successful attempt has been made to evade the duty, first by the importation of splints and veneers and, when this was checked by the imposition of a higher duty thereon, by the import of match

logs. The suggestion to tax the imported match log at an increased rate is in keeping with the previous policy of Government of preventing evasion of the duty on matches and is, moreover, essential if indigenous timber is to be afforded a chance to develop.

A point which must be emphasized is the fact that the actual fall in revenue is not so great as it appears to be, for, as a partial set-off to the decline under consideration, there must be taken into account the increased customs revenue under the head chemicals, paper and match logs, and if match logs are made dutiable at a higher rate, as suggested, the deficit will be very considerably made up. Another factor which deserves consideration in connection with the decline in match revenue is the increased import of matches through Native States Ports. It must be recognized that the industry if based on indigenous timber, will be a more substantial source of Government revenue as compared to the industry based on foreign timber. With the increase of matches manufactured in India, the fall in import revenue in the future is likely to become a serious question. The greater use of indigenous timber will more effectively counterbalance this, for, in the case of indigenous timber in addition to forest revenue there will be an increased railway revenue on carriage of all raw materials incidental to manufacture. This Chamber is further of opinion that at this stage it would be fatal to the industry to tax, in any form whatever, the match manufactured in India from indigenous wood.

This Chamber has taken up this question from the view-point of the manufacturer in India using indigenous timber, as the Chamber is of opinion that the indigenous timber has a genuine and strong case for protection, and that match industry in India can properly develop, flourish and rightly claim to be an industry of the country only if indigenous timber receives a suitable stimulus, which it pre-eminently deserves in Northern India. The manufacturer, Indian or foreign, using imported logs is, as things stand at present, only benefiting himself by evading the taxation levied to meet Government budget and so thereby injuring Government revenue. Between manufacturers using imported wood, the Indian claim for preferential treatment over the foreigner is therefore clearly based more on selfish considerations, than on grounds of sound economics; and this Chamber therefore consider their case to be a poor one. Moreover the Indian manufacturer using foreign wood is in many cases the agent of foreign manufacturers, and preferential treatment to them may seriously jeopardise the development of the industry using Indian timber.

To summarise the statements made above, this Chamber is of opinion that:—

1. The three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are satisfied in the case of the match industry in India, and that the industry should be protected.
2. The present rate of import duty on matches, splints and veneers should be retained, and made a protective duty.
3. A suitable increase in the duty on imported match logs is essential in order to adequately protect the interests and development of the indigenous match timbers, and also to prevent evasion of the duty on matches, splints and veneers.
4. It would be detrimental to the industry to tax the manufacturer using indigenous wood, at this stage with a view to recoup the whole or a part of the decrease in Customs revenue from foreign matches and raw material.

This Chamber desires to emphasise the fact that the above proposals will inflict no hardship on the consumer, and it is not suggested that the duty on foreign matches should be increased, whilst the manufacturer using Indian timber will be enabled to place first class matches on the market at a much lower price.

The Federation of Indian Chambers of Commerce, Bombay.

Letter dated 15th February 1927.

I am directed to forward herewith a copy of the resolutions adapted by the Fourth Session of the Indian Industrial and Commercial Congress and to draw your attention to Resolution No. 8, with a request to place the same before the Tariff Board for its information.

* * * * *

8. (a) This Congress is of opinion that the Indian Match Industry fulfils all the conditions laid down in paragraph 97 of the Indian Fiscal Commission and therefore deserves to be protected.

(b) This Congress, therefore, urges that the present rates of import duty on matches, splints and veneers be maintained and that facilities be provided to make suitable indigenous woods easily available and that transport facilities be afforded to the industry.

(c) That this Congress recommend to the Government of India that in order to enable the Indian Match Industry to overcome its technical difficulties and to be developed, legislation be undertaken by them to the effect that all Trusts of foreign capitalists establishing factories in India, should pay an excise on their products, the amount of such excise being fixed at a figure, calculated to prevent such Trusts from strangling the Indian Match Industry with a view ultimately to monopolising the market.

(d) That it be also enacted that the inclusion of a few Indian capitalists in such a Trust should not be considered a plea for its exemption from the operation of the above rule, such mixed Trusts being entitled only to a reduction in the amount of the excise in proportion to the Indian capital thus employed.

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The Buyers and Shippers Chamber, Karachi.

Letter, dated 19th March 1927.

With reference to the Government of India, Department of Commerce, Resolution No. 235-T. (14), dated 2nd October 1926, re enquiry into the prospects of the match industry in India, I am directed by my Chamber to state as under.

The fact that the decline in the Customs revenues has been the cause for the enquiry in the matter leaves a presumption that Government has its revenues as the foremost point for consideration in coming to a decision in this behalf. But my Chamber, would, with due deference, suggest that Government should rather have as basis for their decision in the matter the fact that prosperity of the subjects is the prosperity of the State and that therefore the State need not hesitate to make a little sacrifice if it could help the general prosperity of its subjects. Now if this be the angle of view, the result is that Government must needs encourage an industry that would lead to the prosperity of the country regardless of its temporary adverse effects on the revenue to any reasonable extent.

Now the wood—the chief raw material in the manufacture of matches is already available in many parts of India and Burma with proper development of forest resources there could arise no question of any difficulty in the requisite supply thereof. Again matches being an article of daily necessity even to the poorest of the population, the question of inadequate home consumption could have no place in a vast country like India.

The comparative standard of India in arts and industries is in itself sufficient proof of urgent necessity for all possible protective measures to be

adopted with a view to elevate its present standard side by side without which every enterprise is bound to meet with failure as a result of confrontation from outside competitions. This fact gets well supported by the fact that but for the present enhanced rate of import duty on this commodity it would have been impracticable for the Indian match manufacturers to achieve what little they have.

With wood in abundance as a result of proper development in forest resources, great home consumption, cheap labour as is always available, doing away with imported skilled technical labour at present employed and removal of other minor difficulties at present facing there is, in the opinion of this Chamber, every likelihood of this industry being eventually able to face world competition without protection.

My Chamber are though inclined to believe that this industry, which as explained above, satisfies all the three essential conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission, may in the long run help to make up the losses meanwhile sustained in the revenues, of course, in some different shape, say, by increase in Income-tax and in Customs duty on the necessary chemicals imported, as well as the export duty on this commodity supplied beyond British India, yet with the facts in hand it is beyond doubt that this industry should fail to lead to the prosperity of the country, if allowed to live and as such it ought to, in view of the general prosperity of the country, be encouraged regardless of loss to the revenues to any reasonable extent.

Burma Chamber of Commerce, Rangoon.

Letter dated the 24th March 1927.

I am directed to thank you for your letter No. 201, dated March 3rd, 1927, and to say that this Chamber has no useful evidence to offer in respect of the Match Industry.

Burmese Chamber of Commerce, Rangoon.

Letter dated the 29th March 1927.

With reference to your letter No. 247, dated the 25th March 1927, I am directed to express regret at the shortness of notice from you, and that the Chamber is of opinion that Burma affords a good field for the development of match industry in the province.

But for the encouragement of the local industry, my Chamber is of opinion that there ought to be no change of the import duty on matches, i.e., my Chamber believes that the duty should be kept as at present and no increment is to be contemplated as otherwise the consumer will be badly affected; but with a view to encourage local industry, my Chamber believes that import duty on raw materials, such as special machinery, Phosphorus, Sulphur, etc., necessary for the industry, should be reduced and that the Forest Department should take less royalty or exempt for some period of years, if possible, on match wood. Further, the Forest Department should help in the encouragement of industry, by planting such trees, as suitable for match wood, at one spot, so that transhipment of timber may not be too costly. The Chamber also learns that the matches, at present, produced are rather inferior in quality and as such the proprietors should be made to guarantee to improve their products, as a condition for preferential treatment, proposed.

With reference to your request to depute a delegate, I am directed to state that U Thin Maung, Proprietor, Burma National Stores, has been deputed to give evidence on the lines suggested above.

The Burma Indian Chamber of Commerce, Rangoon.

Supplementary statements handed on the 31st March 1927.

(1) Note regarding the Swedish Trust.

We have sufficient materials, we believe, to prove that the Swedish Trust does exist, that it is operating in India and that it is operating in a way prejudicial to the interest of the Indian match industry.

The origin of the Trust goes back to the establishment of a match factory in the Swedish City of Jonkoping (1848) which was soon followed by numerous others. After fierce struggles between the competing firms, an agreement was arrived at by them in 1917 which provided for the amalgamation of all the Swedish match producing concerns under the name of the Svenska Tandsticks A. P. with headquarters at Stockholm. The completion of this process of concentration enabled the Swedish match-producing industry to devise vigorous measures by which to extend its influence in the world's markets. By cleverly adapting its policy to the conditions created in the various countries through the war, the Trust secured to itself a considerable influence upon production abroad. In some countries, *e.g.*, Peru, Turkey, Greece and Poland, the Trust has obtained an actual monopoly. In Japan, their activities have practically jeopardised the national industry. In the beginning, the Trust joined as Managing Partners with some factories and after making heavy losses for some years, they succeeded in forcing the proprietors to sell off their factories to the Trust. In some factories, they have got half shares and the Japanese partners are now tired and are likely to sell off their shares in the concerns to the Trust. Their activities in Germany are described in an article which recently appeared in the "New Empire." Copies of which we hand over herewith.

In India, when the import duty on matches was raised to the present figure, the Trust found that manufacturing matches in their own country for export to India left them very little profit, and consequently they started factories in India. They increased their share capital and issued 272,500 shares of £7-5-0 each, which were over-subscribed in the London market. The Swedish Company thus created a British interest in the industry expecting perhaps to have things smooth for them in India. The activities of the Trust in India are described in the following extract from the speech of Mr. Ivan Krouger, Managing Director of the Swedish Match Company, at the meeting of Shareholders held in London on 15th May 1925:—

"It is easy to understand, however, that if the Swedish match industry is to retain its leading position, it cannot rely only on the Swedish factories, and for this reason the Swedish Match Company decided a few years ago to go in for a programme of taking interest in match factories abroad on a very large scale. We have now in operation two newly-built factories in India, one in Bombay and one in Caloutta, and we are building two new ones, one in Karachi and one in Madras, and we have acquired two established match factories in Colombo and Rangoon. It is not our intention to try to monopolise the Indian match trade, and we have decided to seek the co-operation of prominent Indians in our Indian undertakings."

The Trust is thus selling some shares in India to establish the fact that theirs is mixed capital and that their interests are bound up with those of the Indians in the industry. We have the concrete case of the Assam Match Company, which has got 3 Indian Directors out of 7. Their activities in India and the means employed by them are described in an article which appeared in the "Industrial Trade Review for Asia" in October 1925, which is published in Berlin, copies of which are handed over herewith.

Extract from an article in the "New Empire," dated 8th March 1927.

The Trust began to exercise a certain influence on the position of the German match producing industry as early as 1919-20 when it sold 40,000 cases

of Swedish matches to German buyers, and when it placed part of the sale price at the disposal of the Allgebeine Zundhelzexport-Zentrale G. m. b. H., of Hamburg, in the shape of a loan granted to the latter concern. It next secured three-quarter majorities in the firms of Messrs. Stahl and Noelke A. G. and Deutsche Zundhol fabriken A. G. (the so-called "Kasseler Konzern"), and shortly afterwards it acquired an important percentage of the shares of the Union A. G., of Augsburg. At the same time the small factories dependent on these three concerns were also brought under its influence. In this way the Trust acquired control, within a very short space of time, of 70 per cent. of the German production.

Advance of the Trust.

The correct policy of the remaining concerns that had saved their independence would have been to combine their forces against the further advance of the Trust. Instead, however, of doing this, they continued to underbid each other, and finally approached the Government with the request to reintroduce the system of rationing production. But events had moved too fast, and the Government's economic council (Reichswirtschaftsrat) after studying the problem in great detail, came to the conclusion that the proposed measures of difference were ineffective, and that the creation of a state monopoly would also be liable to serious objections. Thus the only thing to do was to let matters take their natural course in the direction of a private monopoly and to ensure that proper provision was made for the protection of the general public and its interests. The intervention of the Government led to the conclusion of a syndicate agreement to which all the producers were parties. All of them with the exception of the Grosseinkaufs-Genossenschaft deutscher Konsumvereine, undertook to place their output at the disposal of a selling organisation in the shape of a limited company or corporation which is to fix prices, to arrange for the proper distribution of the output among home consumers, and to take in hand the exporting business. The capital of the Company is one million reichmarks, one-half of which sum represents the share of the Trust, whilst the other half has been taken over by the German producers and the German Government. The participation of the Trust in the capital, therefore, is less than its share in the production it controls, which amounts, as has been said to 70 per cent. The agreement is to run for twenty-five years, and contains a clause entitling the Government to a certain influence on the fixing of prices, so that the interests of the consumers may be properly protected. Another important stipulation is that the Government is to issue, prior to March 1st, 1927, an enactment making it illegal to manufacture matches without the consent of the Government—a measure intended to make a renewed over production impossible.

Extract from the "Indian Trade Journal," dated 4th February 1926, page 175.

MATCH INDUSTRY IN BIHAR AND ORISSA.

The following is an extract from the Annual Report of the Director of Industries, Bihar and Orissa, for the year 1924-25:—

The scheme for a demonstration match factory mentioned in last year's report was placed before the Board of Industries in August and eventually sanctioned by Government. The project is for the erection of a match factory in the old saw mill belonging to the opium factory at Gulzarbagh on the outskirts of Patna City. The saw mill used to obtain its supplies of wood for opium chests from rafts floated down the Gundak and Gogra rivers from North Bihar to the mill compound which stands on the banks of the river Ganges. It is proposed to obtain supplies of wood for match-making from the forests of Bettiah and Ramnagar estates by the same method. The project was based on the supply of wood at the factory at 15 annas a c.ft. but the Bettiah estate has undertaken to deliver 10,000 c.ft. at the factory for 10 annas a c.ft. so that after due allowance for wastage, etc., it looks as though production will be cheaper than was anticipated.

The woods which it is proposed to use are *Celtis Australis*, *Trewia Nudiflora* and *Alstonia Scholaris*, which are reported by Mr. Ghose to be available in large quantities in these forests. The woods were not only tried in Calcutta, but have been subsequently tested in Bombay by the Match Manufacturing Supply Company, which is supplying the machinery to the factory, with very satisfactory results. *Trewia Nudiflora* has long been known as one of the best match woods in India, and the other two appear to have all the qualities of a good match wood. There are said to be other suitable woods available should the supplies of these woods prove insufficient. The estimated minimum output of the factory is 30 thousand gross per annum, viz., 100 gross a day for 300 days, but it is hoped with the machinery provided that a larger output will eventually be achieved. The objects of the factory are as follows:—

- (1) to see whether good matches can be made in India from Indian woods at a profit in a well-equipped factory;
- (2) to enable persons to see the best match machinery in action;
- (3) to enable Government to give advice with confidence to persons who required it; and
- (4) to train any person, who desires to learn how to make matches in an up-to-date manner.

The location of the factory at Patna, besides making supervision easier, will facilitate inspection by would be manufacturers. The project was accepted by the Legislative Council and Rs. 85,000 has been provided in my Budget for the present year. Of this Rs. 15,000 is assigned for working capital, and the balance for machinery and plant, erection charges and preliminaries and contingencies. It appears likely there will be a substantial saving in the estimate.

Extract from the "Indian Trade Journal," dated 17th February 1927, page 295.

MATCH INDUSTRY IN THE MADRAS PRESIDENCY.

The following is an extract from the Report of the Department of Industries, Madras, for the year ended 31st March 1926:—

There are no further developments to record with reference to the match industry in the Madras Presidency. Two new companies were registered during the year with the object of manufacturing matches, viz., Sri Briganayaki Match Factory, Ltd., Cuddalore, with a capital of Rs. 1,50,000 and the Sri Krishna Match Company, Ltd., Palghat, with a capital of Rs. 6,000 and the progress of these concerns will be watched with interest. The proprietor of a match factory in Bellary has applied for a loan of Rs. 20,000 under the provisions of the State aid to Industries Act for the purpose of installing additional plant and providing the further capital required by the concern and this is now under consideration. The vital necessity of selecting a suitable site for the establishment of a match factory and of ascertaining beforehand whether suitable match woods can be delivered at the factory site at a price which will admit of manufacture at a profit cannot be too often and too strongly emphasized as instances have come to notice where essential preliminary enquiries as to the availability of a suitable wood supply have not been made. The difficulty of extracting timber at a price low enough to enable match manufacture to be conducted at a profit is not always appreciated by enquirers who appear to think that it should be an easy matter for the Forest Department to supply them with timber in the required quantity at a sufficiently low price whereas, so far as the information at the disposal of the department extends, the centres where suitable timber is available are very few. The best location for a match factory in the opinion of the Forest Department, is on the West Coast although even here difficulty would be experienced in obtaining supplies at cheap rates which is essential for success as all suitable match woods are also in demand for coffee and tea boxes and prices are therefore comparatively high. As previously pointed out, any scheme for

exploiting woods for match manufacture should preferably be linked with a general scheme for extracting all marketable timbers and utilizing waste ends for splints and veneers by working them up into match woods. The only wood which will be cheap is waste from saw mills but the only saw mill where the Forest Department have any quantity of soft wood is Olavakot; and there are now two match factories near there. In any location, the Forest Department would have difficulty at present in supplying a sufficient quantity of suitable wood and under present circumstances therefore it seems probable that a large factory would have to use imported timber for splints and veneers.

Extract from the "Indian Trade Journal," dated 11th March 1926, page 425.

MATCH INDUSTRY IN THE UNITED PROVINCES, 1924-25.

The following is an extract from the Annual Administration Report of the Department of Industries, United Provinces, for the year 1924-25:—

General Position.

The possibilities of manufacturing matches continued to engage the attention of capitalists in these provinces. A power-driven factory was started at Muttra and a small factory for the manufacture of matches for splints and veneers imported from Calcutta was started at Agra. A third one was started at Jwalapur near Hardwar and several schemes were in the air. Of the factories which had been started in previous years, the only ones which were going concerns were the factories at Mirzapur and Lucknow. The factory at Nagina did not work.

Supply of damp-proof formula.

One of the main hindrances which impeded the progress was the difficulty of obtaining a formula for making damp-proof matches. The department therefore arranged to obtain such a formula from Mr. N. B. Mukerji, B.Sc., Consulting Match Expert of Cuttack, on payment of a remuneration of Rs. 1,000 plus other expenses sanctioned by the Board of Industries. This formula was demonstrated and examined at the Technological Institute, Cawnpore, and the matches made from the materials supplied by Mr. Mukerji were found to be as good as some Swadeshi matches on the market. The formula is available, without any payment, to *bonâ fide* manufacturers.

Grant of concession rates for wood purchased from Government Forests.

The decision of the Government with regard to this form of assistance was that they were unable to grant any general concession prior to receiving applications, but that they were prepared to consider on their merits individual applications for aid. Individual cases are being examined by the Forest Department.

Supply of veneers and splints.

It has, however, been found that a more suitable form of subsidy than a timber monopoly or a reduction of royalty, would be to arrange for the supply by the Department of Industries of splints and veneers at cost price of manufacture. This arrangement would, apart from all other considerations, save freight on 50 per cent. of the material. The Government have therefore sanctioned a scheme framed by the department in consultation with the Forest Department, for putting down a plant at the Government Central Wood Working Institute, where a peeling machine already exists for the manufacture of finished splints and box veneers. These will be made from several species to be drawn initially from the Haldwani division and to be supplemented by supplies from Tarai and Bhabar estates. If the scheme is sanctioned it will be possible to supply splints at Rs. 10-8 per maund and veneers at Rs. 14-8 per gross of boxes. The price of Japanese splints is about Rs. 15 per maund and of veneers about Rs. 20 per hundred gross of boxes.

Extract from the "Indian Trade Journal," dated 9th September 1926, page 443.

MATCH INDUSTRY IN BENGAL DURING 1925.

The following is an extract from the Annual Administration Report of the Department of Industries, Bengal, for the year 1925:—

A number of large and up-to-date match factories have been established in and near Calcutta, eight in all, and the approximate output of these factories will be of the order of 13,000 gross boxes of matches per diem. The smaller match factories using hand machines have either ceased to exist or are in a moribund condition. It appears that the cottage system for the manufacture of matches will not be able to hold its own and face competition with the modern factories using up-to-date power-driven machinery. As many operations are involved in the production of finished matches and as the products are of comparatively small value, it is unlikely that the manufacture of matches on the cottage system will be successful.

Though many species of wood in the Bengal forests have been found suitable for the manufacture of first class safety matches as a result of the investigations carried out by this Department, little advance has been made in the utilization of these species chiefly on account of the scattered occurrence of these woods and also on account of the unfavourable railway rates.

Most of the factories are using imported logs chiefly from Sweden and Siberia though some of the factories are trying to use Gengwa wood which occurs plentifully in the Sunderbans and which can be brought to Calcutta by means of country boats at a reasonable cost. The available supply of Gengwa wood is, however, not inexhaustible and until systematic cultivation is taken up there can be no security for continuity in this direction. Successful experiments have been carried out by the Industrial Chemist to bleach splints manufactured from Gengwa wood. Though first class splints comparable to the splints made from imported wood could not be produced, nevertheless it has been demonstrated that matches of good quality can be made from this wood. Schemes have been prepared by this Department for different sized match factories, and the conditions, both economic and technical, have been analysed for the benefits of the persons interested in this industry. The chemical composition of matches and the conditions governing the production of damp-proof matches have been studied by the Industrial Chemist with the help of power-driven laboratory machines. First class compositions for match heads have been prepared, and further experiments are now being conducted to ensure the complete success of this industry in Bengal. In conclusion, it can be said that the match industry, in spite of many difficulties, is on the way to success and the factories so far established or contemplated in Bengal are sufficient to meet all her requirements.

(2) *Note regarding restrictions on foreign capital and foreigners doing business in various countries.*

SWEDEN.

Permission is necessary before a foreigner may engage in trade or manufacturing activities in Sweden. Applicants must be 25 years old and must offer guarantee or security for the payment of rates of taxes to State and municipality for a period of three years. Foreigners must obtain permission to form a trading company or become partner in such company. Only Swedish may found joint stock banking companies or unlimited liability banking companies or be shareholders in banking or railway companies or principal stock-holders in solidary banking companies. Foreign subjects, corporations, or institutions, to a certain extent, are restricted from acquiring shares in ordinary Swedish companies.

SPAIN.

In order that firms may be qualified for receiving certain benefits under Spanish Royal Decree, dated 30th April 1924, they must comply with the following conditions:—

- (1) The Board of Directors and the management must be Spanish, but in the case of limited liability companies one-third of the Board of Directors may be foreigners. No foreigner, however, may be President of the Board or Managing Director.
- (2) 75 per cent. of the capital must be owned by Spaniards.
- (3) 80 per cent. of the office staff and workmen employed must be of Spanish nationality. During the first three years, however, the employment of foreigners in the following proportions will be permitted: 75 per cent. during the first year, 50 per cent. the second year and 30 per cent. the third year.
- (4) The fuel, material and fittings used must be Spanish production, excepting where for technical or other special reasons they have to be obtained from abroad.

JAPAN.

Foreign Corporation.—As explained at length by Mr. T. Miyoke, Barrister-Counsellor at Law, in the August No. of the America-Japan, foreign corporations in Japan are taxed as follows on that portion of the profit which is in excess of 10 per cent. on the invested capital, that is to say:—

	Per cent.
(1) On the amount in excess of 10 per cent. of the capital	4
(2) On the amount in excess of 20 per cent. of the capital	10
(3) On the amount in excess of 30 per cent. of the capital	20
Also on income derived from business or assets in Japan	7½
Thus a foreign corporation will in any case be taxed	7½

FINLAND.

December 14, 1923, law passed relative to the State tax of 8 per cent. on all foreigners drawing interest on deposits in Finnish Banks on dividend on shares held by them in Finnish companies.

FRANCE.

Foreign Insurance Companies in France.

Foreign Insurance Companies required by law of February 15, 1917, to obtain approval of the Government Insurance Companies which have not obtained the authorisation of the Government are not only forbidden to sue but are also liable to a fine of 100 to 5,000 francs; in case of second offence 500 to 10,000 francs.

UNITED KINGDOM.

Profits arising from sources outside of the United Kingdom and utilised by their owner are taxable if owner whether British or foreign is a resident of the United Kingdom for a total of six months in any assessment.

TURKEY.

Formalities in establishing Turkish Companies.

In order to become officially established in Turkey a company must comply with certain regulations in regard to registration, taxation and employees. Registration required declaration of company's proposed business activity, its capital and financial resources. Income-tax is virtually the only tax imposed on private firms and corporations. Employees except heads of Departments, managers and technical assistants must be Turkish subjects and Turkish is the only official language.

Telegram which appeared in the "Rangoon Daily News," on 26th March 1927.

FRENCH MATCH MONOPOLY.

M. Poincare's Statement.

Paris, March 25: M. Poincare made a statement to the Cabinet regarding the Match Monopoly Bill. He said the Company and Board must be exclusively French and foreign holders of shares would not be entitled to any control over the management of the company. The deposit with the State would be roughly a hundred million dollars and also the Company would guarantee an annual payment corresponding to the yield of the monopoly hitherto, plus a large share of profits. The State would fix prices.

(3) *Note regarding restrictions on foreigners.*

1. In the case of limited liability companies, I suggest that:—

(a) No company should be allowed to manufacture matches in India unless it is registered under the Indian Companies Act, 1913, and it has a share capital, the amount of which is expressed in the memorandum of association in rupees.

(b) No company, having for its object the manufacture of matches in India should be registered unless at least 75 per cent. of its authorised capital is reserved for Indians in the first instance for a definite period of time.

(c) No forest concessions or leases should be granted to any company unless at least 75 per cent. of its capital is subscribed by Indians in the first instance.

(d) The number of foreigners on the Board of Directors should not exceed one-third of the total number of Directors. No foreigner, however, should be allowed to be the President of the Board or the Managing Director; no firm more than one-third of whose partners are foreigners should be allowed to become Managing Agents. If possible, every foreigner should be required to obtain permission from the Local Government, to join the Board of Directors or the firm of Managing Agents and the Local Government, before granting such permission shall enquire as to whether the applicant is directly or indirectly connected with any foreign trust or combine, whose activities are in any way prejudicial to the interests of the Indian match industry.

(e) Excise duty must be levied on a sliding scale on the products of those factories which are wholly or partly financed by foreign capital in proportion to the foreign capital employed.

I suggest that the excise duty should be levied in the following manner:—

Where foreign capital does not exceed	20%	1 per cent. of the existing import duty for each per cent. of foreign capital.
Where foreign capital exceeds 20 per cent. but does not exceed	40%	1½ per cent. of the existing import duty for each per cent. of foreign capital.
Where foreign capital exceeds 40 per cent. but does not exceed	60%	1½ per cent. of the existing import duty for each per cent. of foreign capital.
Where foreign capital exceeds 60 per cent. but does not exceed	80%	1½ per cent. of the existing import duty for each per cent. of foreign capital.

Where foreign capital exceeds . 80% 2 per cent. of the existing import duty for each per cent. of foreign capital.

(f) A company, having more than 25 per cent. of its capital in the hands of foreigners should be required to provide adequate facilities for the training of Indians.

2. FOREIGN INDIVIDUALS AND FIRMS.

No foreign individual or firm should be allowed to start match factories in India. Foreigners should be required to obtain permission from the Local Government to become a partner in a firm having for its object the manufacture of matches in India.

In the case of firms financed partly or wholly by foreign capital, duty should be levied on the same basis as in the case of limited liability companies.

3. TRUSTS AND COMBINES.

To prevent Trusts and Combines from starting match factories in India, I suggest that there should be an anti-Trust legislation.

I desire to make it clear that these detailed suggestions are not yet considered by the Committee of my Chamber but I have thought it fit to put them before you in the hope that they will form a basis for discussion and enquiry.

RANCHORDAS H. GANDHI.

The Indian Merchants' Chamber, Bombay.

Letter, dated 20th April 1927.

I am directed to send to you hereby the views of the Committee of the Chamber with regard to the various queries referred to in the questionnaire.

2. My Committee do not answer the questions seriatim as many of the questions relate to matters technical concerned with the actual working of the match manufacturing factories, with which they are not directly conversant and as such are not in a position to express any opinion thereon.

3. There are, however, certain points in the questionnaire which are of general importance and they would like to deal with such points only.

4. *Introductory.*—My Committee are aware that there is a general belief, though unfounded, to the effect that all-Indian Matches are inferior to the imported ones. While they do not subscribe to this impression, they have reason to believe that it is due to an erroneous idea of considering the colour of the splints to be the main deciding factor in the quality of matches; if the quality is considered from the standard of utility of imported against Indian matches, it will be difficult to maintain that the Indian matches are not equal in quality to the former.

5. *Wood.*—Wood soft and suitable to the requirements of the manufacture of matches is the principal raw material and such soft wood is neither used as timber nor as fuel but forms merely a part of the forest-waste and was so considered till match factories in India came into existence. My Committee are of opinion that India with such vast and unexplored forests should be in a position to supply all the soft wood required for this purpose, if proper researches are undertaken seriously by the Government. They are informed that the Government of India have directed the Forest Research Institute of Dehra Dun to make researches into the suitability of soft woods available for the manufacture of matches and that some attempts have already been made towards that end, and they will much appreciate if these attempts result in proper utilisation of Indian forests towards building up so important an industry which supplies an every day necessity of life. My

Committee would like to suggest that the forest Department should also take in hand the plantation of such species of soft woods as would be required for this industry. The Government of Bombay have, they learn, made a beginning in planting Sawar trees (*Bombax Malbaricum*) and if such plantations are made on an extensive scale, they will help the problem of the sufficient supply of soft wood to a great extent. There is another handicap, which my Committee would like to point out to the Board, and it is the very prohibitive railways and steam transport charges for the wood. Some railways have now allowed these logs of soft wood to be carried at "fuel rate" instead of a higher rate of "timber," provided the logs are required for *bond fide* use of a match factory. But such a trivial concession does not go to any appreciable extent in inducing Indian Match Manufacturers to use Indian wood for their factory. My Committee believe that proper facilities by way of cheap transport will encourage match manufacturers to use Indian wood to a greater extent. They further suggest that right of extraction of soft woods from forests should be given by tender to *bond fide* match manufacturers only so that the resources of the Indian forests would be more and more utilised by this country.

6. *Other raw materials.*—Other raw materials that are required in the manufacture of matches are mostly chemicals and my Committee are of opinion that if the industry is established on a sound basis these chemicals are likely to be manufactured in India.

7. *Labour.*—India is a country which exports labour—and as such is never likely to be in difficulty to secure labour, either skilled or unskilled required for this industry. There is also a good number of experts in this industry who have either got their training in foreign countries or are trained locally under foreign experts. There is again so much of unemployment for both the skilled and unskilled labour that industries like the match industry which are so simple should be developed to lessen and ultimately to remove unemployment.

8. *Market.*—India has a vast demand for this commodity which is an everyday necessity of life that the yearly requirements of this country amount to 1,700,000 gross of matches per year. The figures of imports for British India alone for the year 1917-18 show the demand to be 17,000,000 gross. There is every possibility of this demand of 17,000,000 gross being increased in view of the fact that a portion of the agricultural class cannot at present afford the luxury of the matches and have still to resort to the primitive method of ignition by the help of steel and granite. My Committee have been pressing for a Committee of inquiry regarding the deflection of trade from Bombay. This problem affects the match industry to a very large extent. Quantities of foreign matches are sold in Ahmedabad and other places at Rs. 1-14-0 when the present duty is Rs. 1-8-0. Without going into details with regard to such conditions, my Committee will again press here for a thorough and searching enquiry into the situation.

9. *Competition.*—The chief competition comes from Sweden and naturally Sweden is much more concerned in the development of this Industry in India. Unfortunately India is a land open to all countries of the world to be explored and there are no measures to prevent any foreign country from exploiting the resources of this country by opening up factories here and thus depriving Indians of the natural advantages that may perhaps accrue out of certain measures which act as protective to any industry. The Tariff Board are probably aware that one of the effects of the import duty of Rs. 1-8-0 per gross has been the opening of match factories by influential Swedish Syndicates in order to take undue advantage of this duty to compete with. My Committee do not desire to go into the details of this powerful Syndicate as the same seems to have been done by bodies more in the know of its doings and directly affected by them, but they would like to impress upon the Board the desirability of instituting a thorough enquiry into the intentions and doings of this Syndicate and the result thereof on the development of the Indian Match Industry. This they believe will form a definite part of their inquiry.

10. *Claim for protection.*—My Committee are conversant with the conditions laid down by the Fiscal Commission to be satisfied by industries claiming protection. They are of opinion that there is a sufficiency of the supply of the chief materials required for this industry, namely, soft wood, if proper researches are seriously taken in hand by Government to find out soft wood suitable for the manufacture of matches. Besides power is not a main consideration in this industry as most of the work can be done by manual labour and is being done at present in most of the factories that are established in India. Whatever power that is required is also available at moderate charge. The question of the supply of labour will not worry the promoter of this industry as labour is abundant in India.

11. My Committee have reasons to believe that unless sufficient protection for sometime is afforded to this industry, it is not likely to develop. But if it is at all developed under the fostering care of the Government it will soon be in a position to face the world competition without the necessity of protective duty. My Committee also wish to impress upon the Board the fact that during the Great War not only the prices of matches had gone up a great deal but there was felt a great scarcity and had it not been for the Japanese import what would have been the position in the country could better be imagined than described. They also believe that had it not been for the Indian factories recently growing up, the prices would have been much more than those that are at present ruling for this bare necessity of life and they trust that the Board will seriously consider the future position of the country in this respect.

12. It is also a well-known fact that India has been dependent upon foreign imports of matches all these years but the position has never been so serious as at present, when a strong syndicate has been formed with an enormous capital to control the industry and to make enormous profits by acquiring factories manufacturing matches in certain parts of Europe and in Japan, the only sources from where matches used to be imported heretofore; even the machinery works and chemical works which manufacture machinery and chemicals for match industry are being taken over by this syndicate in their control in order to preserve their monopoly.

13. The activities of this Syndicate in India are all for the purpose of promoting the interests of the Syndicate that is to get as much of their produce as possible into India, and to capture the Indian markets entirely for themselves, so that ultimately they can sell their products as they like; it is impossible to believe that this Syndicate with this aim, object and activity has established some factories in India with the intention of encouraging this industry in India and therefore, it is hoped that India will not be left to its mercy for a bare necessity of life. My Committee are also of opinion that encouragement to this industry will also be a help to the chemical and paper industries in India and will, while giving employment to thousands, develop forests and cause increase in forest revenues of the Government as also in the revenues of the Railways.

14. My Committee are, therefore, of opinion that the present duty of Rs. 1-8-0 per gross should be maintained. Anything less than this will jeopardise the whole fabric of this industry and once it is pulled down, it will be very difficult for the industry to raise its head again. The reasons for the maintenance of this duty are manifold; the chief amongst them being, the industry being in the hands of a very strong syndicate out to control the world's output and demand, the raw materials that are being imported in India for the manufacture of matches are sold at the maximum rate thereby already penalising the Indian concerns for their attempt to compete with the foreign ones.

15. One of the effects of the protective duty will be that a few new factories will be opened in India by foreign capital; such an advantage has already been taken by the Swedish Syndicate in opening up factories at Amranath near Bombay, Rangoon and Calcutta and their object being necessarily detrimental to the interests of the development of the Indian Industry can only be checked by an imposition of an excise duty on the

produce of factories under the control of foreign concerns in proportion to the capital invested by them. Such an excise duty will put a check to the mischievous activities of foreign trusts out to undermine this industry by dumping their produce on the Indian market. There is another form of indirect assistance which my Committee would like to suggest and it is transport facilities by rail and steam for the finished goods of Indian factories to the different parts of India.

Southern India Chamber of Commerce, Madras.

Letter dated 3rd May 1927.

With reference to your letter No. 257, dated the 29th March 1927, for warding the questionnaire on the match industry, I am directed to communicate to your Board the following views of my Committee on the subject.

There is no doubt that India possesses, even with any other match producing country like Japan or Sweden or Czechoslovakia, immense natural advantages for the match industry. Timber of the right sort is reported to be abundant all over India and if only the factories are located close to those areas there is no need to depend upon imported splints and logs. Although Indian manufacturers at first showed a predilection for foreign wood they have begun to appreciate, thanks to the heavy duty on splints, the qualities of indigenous wood. Cheap power is available in many places and there is no doubt that in the years to come there is going to be a rapid improvement in other place also. Though South India is at present deficient in the supply of cheap industrial power, owing to the distance from the coal fields and the absence of electric power cheap enough for industrial purposes there are gigantic schemes like the Mettur and Pykara Schemes that are being worked out. South India abounds in cheap labour which is evident from the large emigration figures, but skilled and technical labour will have to be imported for some years for running big factories. The home market is ever enlarging and is sure to absorb an increasing supply year after year.

Without the help of protection it is not expected that the industry can withstand foreign competition. It is a trade so liable to price agreement and price cutting by foreign vested interests, that till the native made matches improve in quality, protection is necessary. The strength of foreign vested interests can be seen in that prices have declined recently in spite of the imposition of over 100 per cent. duty. It is the opinion of the Chamber that the industry will eventually be able to face world competition without protection as the industry is already competing in respect of price and has only to extend production and improve quality and finish. It is an industry in which the advantages of large scale production can be achieved and increasing output would mean increasing economy of production; it can also be legitimately expected that in course of time the whole needs of the country could be supplied by the home production. Further, in view of Indian economic conditions this industry can as in Japan give a subsidiary occupation to the rural population.

In the opinion of this Chamber, considering the progress the Indian industry is making, though it may be necessary to retain the present rates of duty for a year or two it will be possible to reduce them considerably afterwards. It is however urged that the Indian industry stands in great need of protection against another competitor, viz: the foreign syndicates setting up match factories in India. With their technical knowledge and past experience and access to industrial finance they are sure to put their foot on this infant industry and it is therefore suggested that in their case a discriminating excise duty equal to the import duty should be imposed or a reasonable rate of bounty should be given to the Indian-owned factories on the basis of production.

Karachi Chamber of Commerce.

Letter dated 4th May 1927.

With reference to the Press Communiqué forwarded with your letter No. 897 of the 30th November last and to the questionnaire received with your letter No. 257 of the 29th March 1927, both on the subject of protection to the above industry, my Chamber wishes to express the following views on the general question of such protection.

On principle, the Chamber is opposed to legislation preventing the free exchange of commodities, especially the free import of such a universal necessity as matches. The Chamber recognizes however that India must maintain Customs duties for revenue purposes and considers that matches are one of the best articles for inclusion in the Schedule as the burden of the tax is very widely distributed. The existing tax, however, in the Chamber's opinion, far too high and should be reduced at the earliest possible moment. It considers that the exorbitant duty at present existing has resulted in the growth of an inefficient and mushroom industry, speaking generally, as is evident from the number of factories which have closed down or carry on a precarious existence, largely owing to the difficulty of obtaining suitable wood: much instability of prices has also resulted.

There is little doubt that a definite announcement by Government that the existing duty would be continued would cause a large increase in this industry and that eventually matches would cease to be imported from abroad. The Chamber feels that this would not be in the best interests of the consumer in this country as, owing to the lack of suitable raw material, India is never likely to produce such good quality matches as are made in countries which have far better natural facilities for the manufacture of this article. Moreover, the shutting out of foreign competition would almost certainly result in an increase in price to the consumer. It would also result in Government losing the whole of the import duty on matches and necessitate either the imposition of taxes on some other articles, the increase of some existing tax, or the imposition of an excise duty on Indian made matches. The latter would assist in still further raising the price against the consumer.

In conclusion the Chamber would point out that the Indian Taxation Enquiry Committee instances (in paragraph 143 of their report) the heavy duty on matches as one case where a duty, if not accompanied by an excise, results in losing Customs revenue, while fostering an unstable industry.

Indian Chamber of Commerce, Calcutta.

Letter, dated the 17th May 1927.

I am directed to send to you hereby the views of my Committee in regard to the various queries referred to in the questionnaire forwarded to me under cover of your letter dated Rangoon, the 29th March, 1927.

2. There are several questions in the questionnaire which are of a technical character of which my Committee have no direct knowledge. They, therefore, do not propose to reply to the questions *ad seriatim* but would like to deal with only such broad points therein as are of general importance.

3. *Introductory.*—My Committee are not in agreement with the belief generally prevalent that the Indian manufactured matches are inferior to the imported ones. That impression which had some foundation in fact a couple of years ago when the Indian match manufacturing industry was in its infancy is, in their opinion, now becoming groundless as a result of the subsequent improvement in the quality of matches under modern methods of manufacture and expert supervision and such a view is also getting slowly out of date.

4. *Raw materials.*—My Committee are of the opinion that there are extensive tracts of unexplored forests which can supply the essential raw material for this industry, viz., soft wood suitable for manufacture of splints and veneers, to the full extent of our requirements. What is now needed is only a definite forest policy on the part of the Government which would overcome the difficulties in the way of obtaining a sustained supply of suitable match wood in requisite quantity. My Committee are gratified to learn that the Forest Research Institute of Dehra Dun are carrying on research into the availability of soft wood for the manufacture of matches and they only hope their efforts in that direction will bear fruit as the existence, sustenance and growth of this industry will depend a great deal on the success their experiments meet with. My Committee are informed that plantations of particular species of wood will be necessary and will be of great advantage. They would, therefore, suggest to the Forest Department the plantation of quick growing and soft species of wood such as *Bombax Malabaricum*, *Anthocephalus Cada-damba*, *Trema* sp., etc., which would reach exploitable sizes within periods varying from 10 to 25 years. There is another very serious handicap to which the match industry is at present subject. It is in respect of the freight charges for the transport of these logs of wood carried by Rail and Sea. Indian logwood is cheap in price, and almost all the factories could use Indian wood. But the cost of freight in the transport of the wood to the factory is so heavy that it becomes almost prohibitive to use this wood. The truth of this remark will be borne out by only one instance. At present, logs of wood can be brought to port—towns, e.g., Calcutta from Siberia at less cost than from Assam. My Committee are of considered opinion that if cheap transport facilities by rail and sea are provided, most of the manufacturers of matches will use Indian wood to a considerable extent.

5. *Other raw materials.*—As regards chemicals with the exception of two or three items like Amorphous Phosphorus, Chlorate of Potash everything is manufactured in India and in the event of the match industry being firmly established in India, there is a great probability of other raw materials also being manufactured in India. Thus, with the establishment of the match industry on a sound footing other subsidiary industries will also come into existence and in the present depressed condition of India, this will be no small boon.

6. *Labour.*—It is all too well known that India has no scarcity of labour, and we need not, therefore, have any apprehension on this score. There is a vast potential supply of labour, both skilled and unskilled. While the industry is in its infancy, foreign skilled labour will have to be imported, but ultimately it will be replaced by Indian labour. The match industry will create a new avenue of employment for both skilled and unskilled labour and will thus help to relieve to some extent the scourge of unemployment which is getting very acute every day and by directing labour to this new industry will also relieve incidentally to some extent the pressure of the population on agriculture as a source of livelihood.

7. *Market.*—India's annual consumption of matches may be roughly estimated at 20 million gross boxes (Bengal alone consumes 6 million gross boxes annually), and a considerable increase is likely to be witnessed in the consumption of matches as a result of improvement in the standard of living of the masses and the abandonment of primitive methods of ignition of fire by steel and granite now in existence in several small villages. At the present time, hardly one-third of our total consumption of matches is manufactured here, while all the rest is being imported. There is thus a vast home market to be catered for by the Indian match manufacturing industry.

8. India's competition to-day is keenest from Sweden from where we now import the largest quantity of matches. Japanese competition has been eliminated from India, thanks to the Swedish Trusts' policy of capturing the Indian market from the Japanese by dumping matches in India at cheap and also perhaps unremunerative prices.

9. *Claim for protection.*—The Match industry, in the opinion of my Committee, fulfils all the conditions laid down by the Indian Fiscal Commission in paragraph 97 of their Report. In India, there is an abundance of wood

which is the chief raw material for the manufacture of matches. My Committee are aware that some factories have to import wood from abroad, but it is due not to absence of suitable wood in sufficient quantities in India but to lack of forest development. If the Government seriously undertake to carry on research to find out soft wood, there is no doubt that a sufficient and sustained supply of soft and suitable wood will be guaranteed to the industry. The industry has experienced no difficulties with regard to cheap power which has been available. As regards labour, India has no dearth of it and no anxiety need be entertained regarding the sufficient supply of labour, skilled and unskilled. Besides, India has a natural advantage of a vast home market for this article of daily use and universal consumption.

10. It is now a matter of common knowledge that several experiments of starting Match factories in India came to grief before 1922. It was in 1922 that a duty of Re. 1-8 per gross was imposed by the Government on the import of matches for revenue purposes. This high duty served as a protective measure to the indigenous Match Industry and under the expectation of the continuance of these high revenue duties which exerted a virtually protective effect, many factories were established in India, and they have since been working with a fair amount of success. The fact that efforts for establishing the Match industry in India failed before 1922 and that they met with a considerable amount of success after 1922 when the present high duties were imposed points to the conclusion that protection was necessary to the progress and growth of this industry. My Committee are convinced that the Match industry is not likely to develop in India unless sufficient protection is accorded to it for some time to come. Developed under the fostering care of the Government for some time, my Committee have reasons to believe this industry will be able to face world competition without protection. This belief of theirs is supported by the fact that the industry has shown steady progress during even the first few years of its existence, as can be seen from a steady decrease in the imports of matches from foreign countries and a corresponding increase of indigenous production during the last five years. The imports in the year 1925-26 were only about 50 per cent. of those in the year 1921-22. My Committee would also like to observe here that, had it not been for the Match factories in India, in the prices of matches would have been much higher than they are to-day and the effect on the consumer of such a state of things in respect of an article of every day use and universal consumption should also be carefully appraised. This is, therefore, an additional reason why India should be made self sufficient in respect of this commodity. There is another serious matter in regard to foreign competition which merits a very close and careful consideration of the Tariff Board, as it threatens out of existence the indigenous match industry. My Committee are referring to the formation of a huge Syndicate known as the Svenska Trust, controlled mainly by the Swedish and American people, with the avowed object of controlling the production of the Match manufacturing industry. This Trust which has an enormous capital of about Rs. 16 crores of rupees behind it has started purchasing over Match factories in Japan and Europe, our chief sources of supply of matches abroad. It has started purchasing factories in India also. In order to capture factories, this Trust employs a method common to the mentality of all Syndicates, viz., cutting down the prices of matches manufactured by it to an extent that makes it unprofitable for other individual factories to keep on working. When this happens, these factories have to be closed down or sold to the Trust, which is a ready buyer thereof, as it is a part of its general scheme of buying over as many factories as possible. My Committee view with grave apprehensions the effect on the Indian Match manufacturing concerns of the policy adopted by the rich alien Syndicate of undercutting the indigenous matches in prices even at a loss to itself at present, and dumping its goods on the Indian market, with the ultimate object of undermining our industry and enhancing the prices of matches to an unlimited extent when it succeeds in acquiring the monopoly of production. My Committee feel that it is time the Government came to the rescue of the industry which is in danger of being stifled, if left to itself, and if this is suffered to happen, the industry will find it extremely difficult to make headway again.

11. My Committee, therefore, propose that the present import duty on matches, veneers and splints should be declared as a protective duty and the existing rates of duty on these articles should be continued for a period of—say—10 years in the first instance, when a fresh enquiry may be undertaken to investigate into the position of the industry and to advise regarding the continuance, increase or decrease of the protective duty. Any reduction in the present duty will, in the opinion of my Committee, seriously jeopardise the prospects of this promising industry. My Committee would also point out here that, even in respect of raw materials imported from abroad the Indian Match industry to-day is being handicapped owing to the very high prices charged in respect of these materials by this very Syndicate which has acquired control over these industries also.

12. My Committee are also alive to the fact that, as at present, behind the wall of protection, many more factories will be established by this foreign Syndicate and it will be difficult for indigenous manufacturers to compete with this Syndicate backed by vast resources. In the event of this happening, the object of protecting and developing this indigenous industry which is in danger of being crushed by the unfair methods adopted by the alien Syndicate will be frustrated and the consumers will be unnecessarily penalised by having to pay higher prices now without expectation of any return in the form of cheaper prices in future. My Committee would, therefore, suggest that a special protection should be granted to the indigenous Match industry by a discriminating excise duty to be levied on the products of the factories financed and controlled wholly or mainly by foreign concerns at the rate of Re. 1 per gross of their output. A large revenue will accrue to the Government from the levy of this duty and this will allay to a considerable extent the anxiety of the Government on the score of decline in Customs revenue. Besides this source of revenue, there are two other sources from which a higher yield of revenue may legitimately be expected, viz., the Incometax and the import duty on raw materials. My Committee would also emphasise here that revenue considerations should not deter the Government from extending protection to this deserving industry which has already given promise of success.

13. My Committee would like to suggest another form of indirect aid to this industry which is yet in a state of infancy, viz., provision of cheap transport facilities by rail and steam for the carriage of logs of wood to and finished matches from the match factories.

Mysore Chamber of Commerce.

Letter, dated 11th July 1927.

With reference to your letter No. 287, dated 29th March 1927, enclosing a printed copy of the questionnaire issued to all the Match manufacturers in India, I beg to inform you that at present this Chamber has nothing to offer on the subject.

M. G. Kale, Esq., Warda, Bombay Presidency.

Letter, dated 3rd November 1926.

As I have five years experience of this industry working as manager of the National Match Works at Agra Road, Chatkepar, Bombay, since 1922 as also working as an Assistant Manager in the Western India Match Company, Limited; at Ambernath services with the Swedish Match Company; and also as I have started two more factories in the suburbs of Bombay and one in Orissa, I think I am in a position to put forth my opinion as regards the changes to be made in import duty on finished matches and splint and Veneers and on imposing the direct tax on local match factories.

When the tax was imposed only on finished matches in 1922, the advantage is taken of this duty only by the merchants of Bombay and Calcutta who were already dealers in matches almost all Behra merchants who have opened factories in the beginning with Japanese in partnership in one form or the other. When again in 1924 the duty was imposed on splints and veneers, the same manufacturers brought in peeling and chopping machines from Japan which are used on Japan (Aspen) wood only. The Swedish Match Company brought their own Swedish peeling and chopping machines who can use Indian wood to advantage (though still these require investigations for utilising great many species of Indian woods at different parts of India).

Now, the fact is that by starting factories by these merchants, the technical side of the Industry has been left with the Japanese only. Swedish Match Company have also got their own technical men and hence no Indian man could take the chance of getting himself proficient with the technical side of the industry as it was all the time kept secret. The Indians are only trained how to run machines only. As far as I can understand these manufacturers have not the moral courage to take up this industry to the last and make improvements but as long as there is such heavy duty on matches and as long as they can take out mass production they may keep the concern going if not they will be willing to close the factories entirely.

Now, the condition of India as regards this industry is such that cottage industries can be much more profitably worked in India than mass production. But because of lack of sound technical knowledge amongst well educated Indians and because of proper impetus not yet given to the development of cottage industry, this Industry is not yet developed on proper lines.

In my opinion to give an impetus to cottage industry, a duty of annas three per gross should be imposed directly on all the match factories which take out mass production on Indian capital and a duty of annas six per gross on match factories supported by foreign capital. This direct duty will not induce merchants to go in for foreign production. Now the matches are sold at Re. 1-6-0 per gross and after the imposition of direct duty it will be sold at Re. 1-9-0 per gross. Moreover when the prices range between Re. 1-4-0 and Re. 1-12-0 per gross, the general public is not affected at all because the retail matches are sold at one match box for one pice. The profit goes to merchants only. So there will be absolutely no change in the situation of the market in matches by imposing such direct duty but it will no doubt give rise to cottage industries.

Cottage industry as I mean can take out an output of 100 to 200 gross per day and hence mass production should mean an output of 300 gross and over per day. Cottage industry for match manufacturing cannot be started with a meagre capital of Rs. 2,000 or 3,000 as some manufacturers on Calcutta side have tried with Indian machines. But at the same time it should not invest more than Rs. 10,000 and within this amount a good factory can be started with combination of either German or Swedish machinery and Japan machinery and much of the work where there is much waste on machines, is to be done by hand labour profitably.

I remember the Patna Government has started a demonstration match factory to train up experts and to spread up prospects of this industry. But as far as I could understand from report, the factory is started on wrong methods unsuitable for Indian financial condition. The factory is started with most up-to-date machines, no doubt, but the combination of all those machines is not necessary to run the factory economically.

As for myself I am now trying to start my own factory at Nagpur on cottage industry basis with my own above mentioned ideas where I wish to give practical training to ambitious well educated men who will start their own factories independently or in partnership with men of their circle.

This is all what I could explain through letter and hope that proper consideration will be made towards developing this match industry on proper lines.

Mr. N. B. Mukerjee, Bengal.

(1) Letter, dated 1st November 1926.

With reference to the letter No. 235-T. (14), dated 2nd October 1926, received from the Assistant Secretary to the Government of India, Commerce Department, Simla, enclosing a copy of the recent Government resolution on the above mentioned subject, I have the honour to state the following facts for your kind consideration for the interest of development of industry in India and Government revenue from this source.

(a) *Effects of a high revenue duty and a protective duty.*—Though it is true that a high revenue duty has naturally a protective effect but a protective duty actually helps a proper development of the particular industry in the country in the most satisfactory manner, which a high revenue duty certainly cannot. Of course it is a well known fact that match industry cannot be made commercially successful without investment of a huge capital on match machines. But a capitalist who desires to invest his capital on a sound basis cannot invest a huge sum on match machines relying on a revenue duty which may be abolished at any moment. Had the duty been a protective one I am sure that more capital would have been invested by the Indian people for proper development of this industry, by this time. I have formed that opinion from my personal practical experiences for canvassing for German match machines, in the Indian market. Of course speculation and investment on a sound basis are quite different things. Taking the advantage of the revenue duty some speculators have started match industry no doubt but capitalists who want safe investment could not come forward. So this duty should be made a protective one considering what civilised countries in Europe did in this respect to safeguard their local match industry against Swedish competition.

(b) *What other civilised countries in Europe did in this respect.*—From the Administration Report of the Swedish Government (available in India Government Commercial Library in Calcutta) for the year 1922, you will see that Swedish Government explicitly admits that it is quite impossible for the Swedish match manufacturers to continue their industry in such a huge scale for high protective duties levied by different countries in Europe. French Government has the monopoly of match making in the country. Spain, Portugal, Italy have levied a high protective duty to safeguard the interest of the local manufacturers.

(c) *Swedish-American combine to monopolise match industry in India and several Japan match factories in Calcutta to avoid Government duty.*—I am sorry to note that there is no mention about this firm and several Japanese match factories, in the Government resolution. Most probably the Indian Government is aware that foreign capitalists have started several match factories in India to avoid the customs duty of the India Government. This Swedish-American combine have come in India to monopolise this industry. They import match wood in the log form from abroad so their production fetch better prices than the matches produced from the Indian wood. They even do not print "made in India" on the label. Calcutta Match Manufacturing Association have already drawn attention of the Government on the subject. "Amrita Bazaar Patrika" and "Forward" already drew the attention of the Government in a special article "Foreign danger in match industry in India" in the issue of the papers 27th December, 1925.

When in the year 1923 some Japanese capitalists tried to import stick and box veneers from Japan to produce finished matches here to avoid Government duty, the Government levied a heavy duty on imported untipped sticks and box veneers to stop this bad practice. Now these foreign capitalists are the main causes of affecting the Government revenue from this source so seriously that their cases should be very carefully considered. In the present days of unemployment these foreigners whose chief aim is to avoid Govern-

ment duty should not be allowed to make huge profit at the expense of the poor Indian consumers. As long as they are in the field (without any duty levied on their production) Indian capitalists will not venture to run in competition with them, so actual development is much hampered thereby.

(d) *How loss of custom revenue can be made up.*

- (i) By levying a duty rupee one per gross of match boxes produced in factories with foreign capital, who started factories in India only to avoid Government duty. They have no technical difficulties.
- (ii) By levying a duty on imported match wood in the log form (matches from imported wood fetch better prices).
- (iii) A small duty on Indian big scale manufacturers after a few years when they are properly established.

(e) *Interest of the consumers.*—The Government has desired to lower the duty for the interest of the consumers. In this connection, I must point out that interest of the consumers is already saved to some extent by competition among the local manufacturers. The wholesale price of a gross of match boxes (full size) was Rs. 2-12-0 only in 1923 which is now Re. 1-11-0 only. I am sure that the present price will go down gradually as soon as the Indian factories attain their full production.

I am the recognised match experts of Madras, Central Provinces, Mysore, Punjab and United Provinces Government so I am connected with many factories in India. If the Government pleases, and agrees to pay my halting and travelling allowance, I shall be always glad to appear before your Board in Simla to give other particulars in this connection. Please acknowledge receipt of this letter and oblige.

(2) *Letter, dated 30th December 1926.*

With reference to your Press Communiqué, dated 29th November 1926, regarding investigation of the question of granting protection to the Match Industry in India, I have the honour to state the following facts for kind consideration of the Board:—

(A) *Grounds on which the Match Industry in India can be considered to fulfil the condition laid down in paragraph 97 of the Report of Indian Fiscal Commission.*

1. (a) As regards the first condition, raw materials of match industry such as suitable wood, sand and some of the chemicals required are available in large quantity in India. This view has also been supported by the Government of India, Bengal, Bombay and Bihar and Orissa in their reports regarding match industry.

(b) As regards labour question, work in a match factory is light, easy and interesting and will suit juveniles and adults of both sexes who are incapable of doing any heavy and outdoor work.

(c) Cheap power can be easily secured for this industry.

(d) There is a large home market for matches in India which will be evident from the following facts and figures gathered from Government records:

In the year 1922-23 (when practically there were a few match making concerns in India) the total import of matches into India was 11,285,740 grosses of boxes valued at Rs. 1,61,80,658 only. [*Vide* Report on possibilities of match industry, Bihar and Orissa Government].

2. As regards the second condition, we find from the administration report of the Swedish Government that many European civilised countries had to levy a high protective duty to safeguard the interest of the local manufacturer against *Swedish competitions*. So this industry cannot be properly developed in India against *Swedish and Japanese competitions* unless and until protected by the Government in every possible ways. So the second condition has been fulfilled in this case also.

3. As regards third condition, I must quote what Mr. Troup observed in the India Government Report on "Prospect of match industry in Indian Empire."

"Any one who has studied the question of match manufacturing in India minutely from all sides will unhesitatingly answer that India is herself capable of manufacturing every match she requires and that there is a great future before the match making industry in India." This industry is sure to stand world's competition when the labourers will be properly trained and proper plantation of suitable trees will be done in the neighbourhood of factories to lower the cost of wood and when technical difficulties of Indian factories will be duly solved.

(B) *Difference of the effects of the high revenue duty and the protective duty into Match Industry in India.*

As the India Government (Commerce Department) states in the resolution No. 235-T. (14), dated 2nd October 1926. It is true that a high revenue duty has naturally a protective effect, but a minute consideration over this point will reveal that a protective duty actually helps a proper development of the particular industry in the country in the most satisfactory manner, which a high revenue duty certainly cannot in such a manner. As regards this particular instance it is a well known fact that match industry cannot be made commercially successful without investment of a large capital on match machines. But a capitalist who desire to invest his capital on sound basis, cannot invest a huge sum on match machines relying on a revenue duty which may be abolished at any moment. Had the duty been a protective one I am sure that more capital would have been invested by the Indian people for proper development of this industry by this time. I have arrived at this decision from my personal practical experiences for canvassing for German match machines in the Indian market. Of course (1) speculation and (2) investment on sound basis are quite different things. Taking the advantage of revenue duty some match importers, who had a good knowledge in this line, have no doubt started match industry, but capitalist who wants safe investment could not come forward. So this duty (Re. 1-8 per gross) on the imported matches should be protective one considering what European civilised countries have done in this respect.

(C) *Foreign danger in Match Industry in India—Swedish American combine to monopolise Match Industry in India,—so protection in another form is also required.*

Most probably the India Government is aware that Swedish American combine, with a capital of Rs. 15 crores, having directors like Mr. Percy A. Rockefeller of America at their back have started match factories in India, to monopolise this industry and to avoid the custom duty of the Government of India on imported matches. They import match wood from abroad in the log form, (to avoid India Government duty on imported sticks and box veneer) so their productions fetch better prices than the matches produced from Indian wood. They even do not print "Made in India" on the label. Calcutta match manufacturing Association have already drawn the attention of the Government on the subject. "The Armita Bazar Patrika" and "Forward" drew attention of the Government in a special article "Foreign danger in match industry in India" in the issue of their papers of 27th December 1925. In the year 1924, when some Japanese capitalists tried to import untipped sticks and box veneers from Japan to finish them in Calcutta to avoid Government duty, India Government was pleased to levy a heavy duty on imported sticks and box veneers to stop this bad practice.

Now these foreign capitalists (Swedish American Combine and some Japanese match manufacturers) are the main causes of affecting the Government revenue from this source so seriously. So their cases should be very carefully considered. In the present days of unemployment among the middle class educated people, these foreigners, whose chief aim is to avoid India Gov-

ernment duty should not be allowed to make a huge profit at the expense of poor Indian consumers. Moreover as long as they are in the field (without any duty levied on their production), Indian Capitalists will not venture to run in competition with them (who have no technical difficulties). So actual development of this industry with Indian capital is much hampered thereby.

(D) *How loss of revenue may be made up.*

(1) An import duty of *annas four only per lb.* should be imposed on imported wood suitable for match industry as matches produced from imported wood fetch better price than the matches from Indian wood.

(2) An excise duty of *annas six only per gross* should be levied on the production of all Indian match factories having average daily output of more than *300 gross* of boxes but less than 1,000 gross and an excise duty of twelve annas only per gross in the case of factories having daily average output *exceeding 1,000 gross* of boxes on the undernoted grounds.

It is desirable that a very heavy duty should be imposed on foreign capital invested for starting match factories in India only to *avoid India Government custom duty on matches*. But if it is done, I am afraid, these existing foreign Indian factories will play off another trick upon the Government. They may wilfully wind up their business and appear under the name of their Indian clerks and patrons to avoid the Government duty. Practically speaking there will be a "*Benami transfer*" in order to cheat the Government. Secondly the new foreign enterprises will have also recourse to the same tricks; they will actually start factories in India in the name of their *Indian Agents*. In both the cases the foreigners will control the management from behind the screen. Viewed in this light, the duty on foreign capitals will be a farce and fail to safeguard Indian interest. I therefore suggest the above-mentioned measure.

If the Government be pleased to accept this suggestion it will bring a heavy pressure upon Indian factories run with foreign capital for naturally these factories are all big concerns having daily output of *more than 1,000 gross* of boxes. I suggest the limit to *300 gross* simply because profits accrued after meeting the heavy expenditure on European Experts and establishment from factories of this type will not be attractive to the foreign capitalists.

The existing *bond fide* Indian big concern may be apparently affected but they should not murmur as they have still a protection of *Re. 1 only per gross* of boxes, (i.e., nearly 100 per cent. *ad valorem*) and as the proposed measure will exert every influence to check the foreign intruders in India.

The advantages derived from this measure will give an impetus to the development of match industry by thousands of unemployed educated men on a *Cottage industry system as well as on a moderate factory scale* (having daily output of less than 300 gross), with a fair capital provided the technical trade secrets are known to them.

(E) *Interest of Consumers.*

The Government has desired to lower the duty for interest of the consumers in India. In this connection I must point out that interest of the consumers are already saved to some extent by competition among the local manufacturers. Wholesale price of a gross match boxes (full size) was Rs. 2-12-4 in 1923 which is now Re. 1-11-0 only though the rate of import duty is the same. I am sure that the present price will go down further as soon as the number of factories will increase by taking the help of protection and these factories attain their full production. Moreover in these civilised day matches are used by the rich and the poor, so every body must admit that this tax is very fairly distributed over all communities. If this duty is lowered, the Government is sure to make up the loss of revenue from this source by taxation on some other articles. So this rate of duty (Re 1-8-0 per gross should not be lowered because the foreign competitors will get advantage in that case.

Mr. C. V. Mudaliar, Madras Presidency.

Letter, dated 27th December 1926.

I humbly beg to say, that I support the same resolution, which was passed in the Executive Committee of the Indian Match Manufacturers' Association, Calcutta, as I am one of the members of the above Association.

K. C. Sen, Esqr., Calcutta.

Letter, dated 30th December 1926.

With reference to your Press Communiqué, dated the 29th November 1926, I beg to submit that I am one of those who strongly believe that the Match Industry satisfies all the conditions, laid down in the Report of the Indian Fiscal Commission in regard to industries claiming protection and venture therefore to submit this representation for consideration of the Board.

Most of the points referred to in your Communiqué have been exhaustively dealt with by me in a book, entitled "The Match Industry in Danger," a copy of which I beg to submit herewith for favour of your perusal. It will be seen that most of the difficulties I foresaw in 1924 when the book was published, have arisen and I am sure that others will also arise unless the remedies suggested are applied without much delay.

Replying to the question regarding the retention of the import duty on the existing scale, I beg to submit that the Match Industry in India is bound to collapse if the existing duty is reduced. It has not yet had time nor opportunity to solve its technical difficulties so that at present the margin between the cost of production and the selling price leaves a very little profit to factories while the cottage producers earn only what may rightly be called the wages of their labour. Besides some of the imported matches are being sold, I think, at cut prices to regain the Indian market. These prices after paying the duty differ only by a few annas per gross from the price at which the products of the Indian factories are sold. Any reduction, therefore, as has already been mentioned, would be ruinous to the Indian manufacturers.

Replying to whether the industry satisfies the conditions, laid down in the Report of the Indian Fiscal Commission, I beg to submit that—

- (a) Numerous factories as also match manufacturing on cottage scale have come into existence during the last few years. This development has, as has been admitted by the Government of India, caused a large drop in the revenue on matches.
- (b) That it has natural advantages is emphasised by Mr. R. S. Troup in his book, entitled "The prospects of Match Industry in the Indian Empire," published in 1910 under the authority of the Government of India. The last few years' experience has only added weight to the assertion that "There is a great future before the match-making industry in India" made by that far-sighted economist. It may only be added that excepting a few chemicals and zinc sheets, all other materials are or can be, manufactured in India.
- (c) It has already been mentioned above that without under the protection of the existing duty it is impossible for the industry to develop. But in order to enable the country to enjoy the benefits

of this duty, an excise on the products of factories financed wholly or in part by foreign capital is essentially necessary. The amount of such excise, considered effective by me, is annas eight per gross in the case of the former and in proportion to the amount of foreign capital employed in the case of the latter. Without this the Indians can never hope to hold their own. If no such excise is raised, the interest of the Indians, both manufacturers and consumers and of revenue, will suffer to the exclusive benefit of the foreign capitalists. The question is whether we want the foreigners to drain our financial resources or whether we want the Indians to have a fair chance in the domain of commerce and industries and the foreigners to earn without being able to injure their Indian competitors.

- (d) I believe that it will be possible for the industry to flourish without protection after, say, 15 years, since by that time we expect to train our labour, to avoid loss due to the present want of experience and insufficient technical knowledge, and to take advantage of other favourable circumstances. This has been the case everywhere and there is no reason why it would be otherwise in India.

Before suggesting categorically the measures of protection for the development of the industry, I beg to draw the attention of the Board to the distress prevailing in India due to unemployment. There are countries where the Government contributes to unemployment insurance. But there are no such paternal legislation in this country—the unemployed here are doomed to starvation. Some industries therefore ought to be protected in such a way as will help these poor people to make a living without leaving any possibility of these,—their bread-earning work being snatched away from them by foreign capitalists. Match Industry is undoubtedly one of those industries that can be carried on in one's own home with no difficulty to find market. Its adequate protection will go a long way to solve the problem of unemployment. It is indeed a matter for regret that owing mainly to the want of a timely protection numerous small cottage concerns in Bengal have already shut down.

Great Britain with all her industrial skill and accumulated experience has found it necessary to pass a safeguarding of Industries Act. I leave it to the Board to decide how much more need has India of legislation of that kind.

I beg, finally, to submit that the industry should be given protection in the following manner:—

- I. By retaining the duty on imported matches, splints and veneers at the present scale for about 15 years.
- II. By transferring the above duty from the revenue to that of protective schedule.
- III. By the imposition of an excise at the rate of annas eight per gross on the products of factories financed wholly by foreign capital, the rate of excise to be charged from factories financed by mixed capital being in proportion to the foreign capital employed.
- IV. By taking steps to facilitate extraction and transport of the required species of wood from forests and to replant it to maintain the supply.
- V. By reducing the freight on the carriage of raw materials, specially wood, charged at present by Railway and Steamship Companies.
- VI. By steps being taken to check profiteering in raw materials.
- VII. By enabling the manufacturers to obtain match-wood from the Government reserved forests at reduced royalty rates.
- VIII. By the conservation of the required species of wood and forest areas for use of the industry.

P. C. Roy, Esqr., Khulna, Bengal.

Letter, dated 31st December 1926.

With reference to your Press Communiqué, dated 29th November 1926, regarding the protection of match industry, I beg to put in my views on the subject as follows:—

Match industry requires greater protection than any other industry in India. The three conditions for the protection of any industry laid down in paragraph 97 of the Report of the Fiscal Commission of 1921-22 are amply fulfilled in case of Match Industry in India as it possesses all natural advantages for considerable development.

1. (a) Wood—the principal raw material for the industry is plentifully available in this country; with proper facilities by reduction of Railway and Steamer freights, it can be made available at all places throughout the country.

(b) Coal and petrol for producing the power are abundant here and available at a cheap cost. Electrification schemes taken up in different parts of India make electric power available at a cheap cost very soon in the principal towns.

(c) Labour is cheap and sufficient and though unskilled can be easily trained in this industry.

The earning of an Indian individual is the lowest in the world and can thus be cheaply engaged in this industry even after training.

(d) The outturn has a ready home market, as it is an every day necessity for every household.

2. But this industry cannot develop at all without the help of protection.

An attempt was made to manufacture matches first in Bengal some 30 years back. This as well as several others that followed collapsed for (a) want of suitable wood being made available and (b) in consequence of foreign competition.

At last in the year 1907 a systematic research for suitable wood was made in the factory started by the late Sir Rash Behari Ghose. The Government Forest Department helped this research by sending woods from their different forests. After a long experiment involving considerable expenditure, the proper woods for matches were discovered but the factory could not succeed by reason of competition with foreign matches under specially favoured circumstances.

As soon as the higher import duty on matches was imposed the old factories opened their doors again and several new others came into existence. Since then the industry has developed to a certain extent, though the progress is slow on account of imperfect protection against foreign exploiters.

To throttle this infant indigenous industry in its own country the foreigners started big factories in India with their unlimited resources of skill, capital and transport facilities of foreign wood under specially reduced freight in their own steamers. Moreover, they are putting up unfair combat by underselling their products in the markets created or likely to be created by indigenous smaller factories, thus compelling the latter to close down or sell their assets to these designing people. The Indian manufacturers being apprehensive of their intention made joint representations to the Hon'ble Member of the Commerce Department sometime ago and are still looking up to him for a fair basis of competition.

But for this indigenous design of the foreigners to evade the import duty by an indirect method and an unfair and unequal combat as expressed in underselling their outturn, indigenous match factories with Indian wood would have developed to a fair extent even in this short period.

(3) There is no doubt that match industry with proper protection will develop considerably and will eventually be able to face world competition without protection.

The natural advantages as put forth in (1) will ultimately make the industry very successful and there is every possibility of the products of indigenous factories being exported into foreign countries after satisfying the full demand of India.

Mr. Troupe, the late Forest Economist, rightly observed that "It is a question of time when India will not only manufacture her own requirements but will export her matches to other foreign countries."

Under these circumstances I would suggest the following steps both for protection of this industry as well as for recoupment of the falling revenue of the Government in this connection.

(1) The custom duty imposed at present on imported finished matches, splints and veneers should be converted into a protective duty on the same scale.

(2) Protective duty on match logs should be imposed at not less than Re. 1-8 per cubic foot, one cubic foot of log being taken as yielding four grosses of matches. Indian factories working with foreign logs will not suffer, as the products from such logs usually sell at a higher rate than those from local wood. Adoption of this measure will lead to a greater demand for indigenous wood and will develop another source of income to the Government in the shape of an increase in the forest revenue.

(3) A suitable excise duty of not less than 12 annas per gross should be imposed on the production of factories—three-fourths of the capital and directors whereof are not Indian, as suggested by the minority report of the Industrial Commission.

I strongly object to the imposition of any sort of taxation on the indigenous factories for some time to come, as this will at once create additional advantages to the foreigners and the Indian factories will be smothered.

(4) On the other hand, I would suggest adoption of suitable measures for the transport facilities of Indian match wood throughout the country by securing a suitable reduction of Railway and Steamer freight, to lessen the cost of manufacture on this head, as well as for the sake of forest revenue.

It will not be out of place to mention here that the actual fall of revenue due to the import duty is not so high as it appears to be. Match manufacture in India has increased the import of chemicals, papers and wood, etc., and has increased the consumption of wood from Government forests. The increased revenue on these heads considered along with its apparent fall on matches would show the figures much less.

The actual fall in revenue will be further lessened by the adoption of the measure suggested above, which will also protect this indigenous industry at its child stage and help it on from its struggling existence to a fully developed adult condition in a short period when it will afford to be free and helpful to the revenue itself.

Mr. J. B. Williams and other Merchants of Surat.

Copy of letter, dated 27th January 1927, from Mr. J. B. Williams and others of Surat to the Secretary to His Excellency the Viceroy and Governor General in India.

We the public Associations and merchants request your Excellency and your Tariff Board to consider over the match duty again as the last copy attached, and reduce the duty in protecting the advantages of the Government's Customs increase of imports and the European and Foreign trades.

Copy of enclosure to the above letter.

We all the public associations and merchants beg to bring to your Excellency's kind attention the great deeply considering matter that in many parts of India and mostly in Bombay and Calcutta there have been established many match manufacturing factories on great scale and day by

day increasing, and they are selling their matches on great profit and competing with those of the foreign made matches and selling the Indian made matches at less rate than the cost of the foreign matches, because the foreign matches have to pay heavy customs duties while the Indian factories have to pay no heavy duty. Therefore the foreign match factories and Government are losing by reducing the import of foreign matches, the duty than before. In competition the Indian match factories are saving the advantage of Government duties while the Government are in disadvantage of duty very highly.

Therefore we request and hope that Your Excellency will give your kind attention to fix the duty on Indian match factories as much as ruling on foreign match factories in the Government customs, to bring on equal cost and to bring the increase in Government duties.

Forest Department, Burma.

(1) *Un-official note, dated the 28th February 1927, from the Chief Conservator of Forests, Burma, to the Secretary, Tariff Board.*

As requested I send a copy of the statistics of matchwood species in Insein Forest Division. These statistics are based on the result of actual countings.

At our informal interview the other day I was asked to state which species of those enumerated on pages 64 and 65 of Mr. Troup's Memoir on the match industry were proved suitable for the purpose. I do not know to what extent all have been tested for the purpose, but I understand that the following are definitely considered suitable:—

3. *Anthocephalus Cadamba* (Mau).
4. *Bombax insigne* (Didu).
5. *Bombax malabaricum* (Letpan).
25. *Spondias magnifera* (Gwe).
- Sterculia campanulata* (Sawbya).

The following have not been tested definitely:—

7. *Duabanga Sonneratioides* (Myaukngo).
14. *Gmelina arborea* (Yemane).

Matchwood statistics for Insein Division.

Accompanying statement gives the full details of estimate of stock of timbers suitable for matchwoods in areas in which enumerations were carried out in 1925-26.

The exploitable girth has been fixed at 5' 0" at felling height which for purposes of estimating the yield has been taken at 18" diameter at breast height. It is estimated that the average outturn per tree 5' 0" and over at felling height is 1 ton. Working on these figures the tonnage per acre is as follows:—

Mahuya Reserve, whole species enumerated as matchwoods:

Sawbya Sterculia campanulata.

Gwe Spondias mangifera.

Mau { *Anthocephalus Cadamba.*
Barcocephalus cordatus.

Didu Bombax insigne.

Letpan Bombax malabaricum.

Total area 47,776 acres.

Total stock 18" and over—14,848 trees, each equal to 1 ton.

Tonnage per acre—0.31 ton.

Paunglin.—29 compartments out of a total of 100 but containing the most accessible forest.

Same species as in Mahuya.

Total area enumerated about 19,400 acres.

Total stock—7,781 trees, each equal to 1 ton, 18" and over.

Tonnage per acre—0.4 ton.

Western Plains.—The H. Hlaing Yoma Plains, S. Hlaing Yoma Plains, Magayi and Thabyu reserves. Same species as for Mahuya reserve, but including *thitpok* (*Tetrameles nudiflora*) which is probably unsuitable.

Total area—45,432 acres.

Total stock 18" and over—11,186 trees, each equal to 1 ton.

Tonnage per acre—0.25 ton.

MATCHWOODS IN INSEIN DIVISION.

BASED ON ENUMERATIONS MADE IN 1926.

Estimated number of matchwood trees of 8-inch diameter and over.

	Species.	DIAMETER CLASSES.							Total.	Remarks.
		8-12 inches.	12-16 inches.	16-20 inches.*	20-24 inches.	24-28 inches.	28-32 inches.	32 inches and over.		
Mahuya Reserve (whole area).	Sawbya . . .	17,990	15,333	8,006	2,977	961	163	50	45,500	* The minimum girth prescribed in the Dawood lease (5' at point of felling = 4'-6" at breast height) is considered to fall about the middle of this diameter class.
	Gwe . . .	8,305	7,312	3,402	895	269	99	69	20,351	
	Man . . .	858	983	969	812	539	306	408	4,320	
	Didu . . .	1,213	848	541	263	224	114	206	3,409	
	Letpan . . .	42	21	7	12	6	10	4	102	
		28,408	24,467	12,925	4,959	1,999	692	737	74,182	

	Species.	DIAMETER CLASSES.							Total.	Remarks.
		8-12 inches.	12-16 inches.	16-20 inches.	20-24 inches.	24-28 inches.	28-32 inches.	32 inches and over.		
Paunglin Reserve 29 compartments only out of a total for the whole reserve of 100 compartments averaging 1 square mile in area.	Sawbya . . .	2,074	3,134	2,560	1,017	302	75	39	9,201	
	Gwe . . .	2,474	2,594	1,915	835	331	67	93	8,309	
	Mau . . .	288	332	329	438	235	137	179	1,938	
	Didu . . .	1,139	763	674	446	228	181	419	3,850	
	Letpan . . .	0	8	5	0	5	3	11	27	
			5,975	6,826	5,483	2,736	1,101	463	741	23,325
The whole of the Western Plains series except the Hmawbi Reserve.	Sawbya . . .	1,564	1,835	864	492	214	48	73	5,090	
	Didu . . .	10,366	5,935	2,220	866	347	140	175	20,049	
	Gwe . . .	38,181	23,572	7,981	2,819	484	246	250	78,033	
	Mau . . .									
	Letpan . . .									
Thitpok . . .	...	...	...	...	...	...	...	...
		50,111	31,342	11,065	3,677	1,045	434	498	98,172	

(2) Letter dated the 21st March 1927, from the Chief Conservator of Forests, Burma, to the Secretary, Tariff Board.

As requested, I have the honour to attach a financial forecast of planting for purposes of supplying wood to the match industry. I may add that as stated in the preamble this forecast is based on no data as no data on the subject are available and in the absence of data, it can have little value. I, however, believe that it is on the safe side.

Financial forecast of planting for purposes of supplying wood to the match industry.

We have no actual experiments on which to frame estimates of the finance of planting matchwoods and I have already stated in my report that to enable a safe estimate to be framed experiments up to 15 years would be necessary. In the absence of data based on actual experiments, any estimates put forward are pure guess work. It is on this acceptance that I put forward the notes below.

Land for plantations.—There are two alternatives:—

- (1) to plant up suitable areas in reserved forests;
- (2) to reserve or acquire land outside reserved forests for the purpose of forming plantations.

Under the first alternative the areas planted would not be continuous; but would consist of scattered patches throughout forest that was not suitable for purposes of planting. Apart from the difficulty in finding suitable areas sufficiently concentrated to allow of economical planting, the matter of planting for the supply of matchwoods will have to be considered with reference to other interests such as the requirements of the rural population which in the future will have to be met largely from artificially created crops as also from the financial standpoint as it is probable that it will pay better to plant timber producing species. It must be remembered that the areas in our reserved forests that are suitable for planting and at the same time accessible to economical extraction are very limited.

The second alternative may prove expensive and difficult as all accessible areas suitable for planting are more or less already occupied. Acquisition costs would therefore be heavy and unless the areas were reserved the finance of the plantations would be further hampered by land revenue assessment. Owing to accessibility the cost of protection would be heavy and the area would have to be completely fenced against cattle.

Letpan (*Bombax malabaricum*) however springs up naturally on newly formed sandbanks which have been raised above the ordinary flood level and should Government decide to have the possibilities of reserving land for the purpose of planting matchwoods investigated, a careful examination of the river in land should be undertaken. There is undoubtedly much land that grows *letpan* naturally, notably along the Irrawaddy and its large tributaries above Mandalay. The matter should however be undertaken cautiously. The first point is to assure ourselves as to the extent to which planting or regeneration of such land is an economic proposition. Our experience so far has shown that there is great danger of the young plants being washed out by floods and apart from this there is a general tendency to instability in the case of riverain land. Reservation should only be undertaken when the question of economic planting has been decided.

Cost of formation.—The cost of formation would depend on whether communities practising shifting cultivation were available to undertake the work. Should these be available, the cost of formation should not exceed Rs. 30 per acre and in some cases it may be as low as Rs. 20 per acre. Should communities practising *taungya* cultivation not be available for the work, the cost would be considerably enhanced and may amount to anything up to Rs. 120 per acre.

Cost of tending.—The cost of tending will depend entirely on the cost of protection against man and cattle, as apart from this there should be little or no expenditure outside the cost of formation. What little there is should be offset by the intermediate yields of thinnings and in the case of *Bombax*, the sale of cotton. Assuming that one man on Rs. 30 per mensem can patrol 320 acres, the cost of protection would work out at Rs. 1.1 per acre per annum, say Rs. 2 to include the cost of supervision.

Yield per acre.—We have no data as to what this will be. On a short rotation of 15 to 30 years I should not risk putting it higher than 25 to 30 tons to the acre though there is reason to assume that with a 30-year rotation, the yield will approximate to 60 tons to the acre.

Financial forecast.—Assuming that there will be no charge for taxation, I append a financial forecast on the lines of that on page 34 of Mr. Troup's Memoir. On this forecast it should be possible eventually to supply standing timber at a royalty rate of Rs. 10 per ton round of 50 c.ft. which should allow of delivery at the mill at a cost not exceeding Rs. 35 per ton, the extraction being undertaken by private agency.

(Sd.) H. W. A. WATSON,

*Chief Conservator of Forests,
Burma.*

The 21st March 1927.

Financial forecast excluding any question of taxation on the land.

Cost of formation and early tending to end of first 5 years.		TOTAL COST OF FORMATION CAPITALISED.				COST AT MATURITY RECKONING AT 4% COMPOUND INTEREST.				BASIC COST OF PRODUCING UTILIZABLE STANDING TIMBER PER TON OF 50 C. FT. ROUND (RS. AND DECIMALS OF A RUPEE).			
		15 years rotation.	20 years rotation.	25 years rotation.	30 years rotation.	15 years rotation.	20 years rotation.	25 years rotation.	30 years rotation.	15 years rotation 25 tons per acre.	20 years rotation 30 tons per acre.	25 years rotation 35 tons per acre.	30 years rotation 40 tons per acre.
Rs		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.				
10	Capitalised cost of protection and supervision at Rs. 2 per acre per annum at 4 per cent. compound interest. 15 years rotation Rs. 23-24. 20 years rotation Rs. 27-10. 25 years rotation Rs. 31-24. 30 years rotation Rs. 34-58.	32-24	37-18	41-24	44-58	58	81-4	119-94	144-43	2-32	2-71	3-43	3-61
20		42-24	47-18	51-24	54-58	76	103-3	146-60	176-86	3-04	3-44	4-19	4-42
30		52-24	57-18	61-24	64-58	94	125-2	173-26	209-29	3-96	4-17	4-95	5-23
40		62-24	67-18	71-24	74-58	112	147-1	189-92	241-72	4-48	4-90	5-43	6-04
50		72-24	77-18	81-24	84-58	130	169-0	216-58	274-15	5-20	5-35	6-17	6-85
60		82-24	87-18	91-24	94-58	148	190-9	243-24	306-58	5-92	6-36	6-95	7-66
70		92-24	97-18	101-24	104-58	166	212-3	269-90	339-00	6-64	7-09	7-71	8-48
80		102-24	107-18	111-24	114-58	184	234-7	296-56	371-43	7-36	7-32	8-47	9-28
90		112-24	117-18	121-24	124-58	202	256-6	323-23	403-86	8-03	8-55	9-23	10-10
100		122-24	127-18	131-24	134-58	220	278-5	349-88	436-29	8-80	9-28	10-00	10-90
110		132-24	137-18	141-24	144-58	238	300-4	376-54	466-72	9-52	10-01	10-76	11-72
120		142-24	147-18	151-24	154-58	256	322-3	403-20	501-15	10-24	10-74	11-52	12-53

(3) Letter dated 24th March 1927, from the Conservator of Forests, Hlaing Circle, Burma, to the Secretary, Tariff Board.

I have the honour to forward herewith four copies of a note on matchwoods. I have telegraphed for the figures required in paragraph 6.

Matchwoods.

General.—Matchwoods are forest weeds. Their advantages are that they grow very fast and can be floated but much of the forest from which they are exploited is also accessible to extraction by land, and the more valuable hardwoods are more numerous and more valuable. By a lucky accident we now receive Rs. 12½ for matchwoods from the Paunglin-Mahuya block in Insein, but a recent tender sale of a more accessible block only realized Rs. 6 and that seems to be the true value.

2. Pyinkado (*Xylia dolabriformis*) alone is more numerous than all matchwoods put together (about 37,500 accessible trees to 31,000 of matchwoods, all over 20 inches diameter in the Paunglin-Mahuya block) and a normal royalty for it is Rs. 15 as against Rs. 6. Many other species are worth more than matchwoods and teak very much more. It is therefore most improbable that operations to improve the growing stock will favour matchwoods to any appreciable extent. Extraction from mixed forests must therefore be considered temporary and is unlikely to be very satisfactory.

3. Among matchwoods, the species likely to be considered obligatory are:—

- Letpan (*Bombax malabaricum*).
- Didu (*Bombax insigne*).
- Sawbya (*Sterculia paniculata*).
- Odein (*Bhretia laevis*).
- Maulettanshe (*Sarcocephalus cordatus*).
- Setkadon (*Trewia nudiflora*).

Optional species are:—

- Thitpok (*Tetrameles nudiflora*).
- Thabutgyi (*Milium velutinum*).
- Gwe (*Spondias mangifera*).
- Nabe (*Odina Wodier*).
- Thitpyauk (*Sapium insigne*).
- Letkok (*Sterculia sp.*).
- Bonneza (*Albizia stipulata*).
- Myaukngo (*Duabanga sonneratiodes*).
- Thakutpo (*Stereospermum sp.*).
- Panga (*Terminalia Chebula*).

4. Of these Sawbya, gwe, mau, didu and letpan were enumerated by Mr. Scott in part of Insein division and his estimated annual output for all matchwoods for the whole division is 7,000 trees of 4½ ft. breast girth and upwards (probably averaging a ton each) from 287,251 acres. This amounts to an output of a ton a year for every 41 acres. This estimate is based on the 15 years felling cycle and though the number of trees may remain constant, the tonnage is likely to decline.

5. The distribution is so scanty and probabilities of increasing the stock so remote that continued working in mixed forests seems unlikely. Insein is likely to contain considerably above the average volume of matchwoods and there is no reason to expect anything better near any of the larger towns; in fact it is questionable whether there is anything better in the whole of Burma. The future of the match trade is therefore likely to depend on planting.

6. In 1925 I inspected the letpan plantations in Henzada. They were formed under very favourable conditions, sandy alluvium on the banks of a Yoma stream. In the 1919 plantation, then 6 years old, the average on lower ground was 43 feet high and 29 inches in girth and on a higher shelf 54 feet high and 40 inches in girth. The average for the whole plantation now (1927) is said to be feet high and inches in girth. A first class teak plantation on more fertile soil runs to about 45 feet high in 6 and 52 feet in 8 years and probably produces about 50 tons to the acre on a 80 year rotation. It may not be too optimistic to expect 25 tons to the acre on a 30 year rotation for matchwoods provided that fertile sandy alluvium is chosen for plantations.

7. The difficulty as regards planting will be to find a large area of suitable soil over which there are not too exacting claims. Reservation over 12,060 acres of soil of this kind for grazing (Pynmana division) cost Rs. 1,20,239. It is possible that a firm or an individual might acquire land in cheaper rate. There are considerable stretches round Moulmein, especially up the Salween, but we can hardly recommend planting on a large scale by firms or private individuals until we know more about the rate of growth and probable cost. Given a suitable form of cultivation the direct cost should not exceed Rs. 50 per acre but to this must be added the value of the land if bought for the purpose and the cost of protection and supervision. Firms and individuals should be able to cut the latter considerably below Government expenditure but it is not safe to put it much less than Rs. 2 per acre per annum and it is quite likely that fencing will be also necessary. The Chief Conservator has sent in tables of cost and I agree with him that we must work for a minimum charge of Rs. 10 a ton.

8. I estimate the cost of formation with a suitable form of cultivation as follows:—

Rs. 16, Rs. 6, Rs. 4, Rs. 2, Re. 1.—Re. 1 from year to year or about Rs. 30 per acre at ten years, but to cover failures it is better to put the cost at Rs. 50 an acre. This may be reduced by sale of thinnings between ten years of age and maturity. At four per cent, this expenditure will amount to about Rs. 147 and a cost of Rs. 2 per acre for supervision and protection to a further Rs. 110 or a total of Rs. 257. This shows a small deficit between a probable selling value of Rs. 10 a ton for 25 tons and the cost at compound interest, but the expenditure should be slightly reduced by the net sale value of stems removed in thinnings at 15, 20 and 25 years. The value of the land is take as *nil*.

Forest Research Institute, Dehra Dun.

(1) Letter No. 396/37, dated 18th January 1927.

With reference to your letter No. 39, dated the 5th January 1927, I have the honour to enclose herewith copy of a Memo. No. 1/2208/M.F.P., dated the 15th January 1927, by the Forest Economist on the subject and to enquire if you would like this Institute to prepare a further note on this subject. If so, please intimate the latest date this note should be in your hands as it will be necessary to carry out some enquiries.

Copy of Memo No. 1/2208-6/M. F. P., dated the 15th January 1927, from the Forest Economist, Forest Research Institute and College, to the President, Forest Research Institute and College, Dehra Dun.

I give below such information as is available on the enquiry made by the Secretary, Tariff Board.

1. Subsequent to the publication of the "Prospects of the Match Industry in the Indian Empire" by R. S. Troup, further researches have been

carried out, in a small way, by this Institute, into the question of the fitness of Indian woods for the manufacture of matches.

2. In the first place, a record has been made of the opinions expressed by manufacturers of the suitability of species which they have tested in this respect and consignments of timber have from time to time been sent to Match factories for report as to their suitability for splints and boxes.

3. Arrangements have also recently been made to supply trial logs of different species to a firm in Bombay who have agreed to report on their suitability for match making.

4. As regards other work in this connection, I would draw the attention of the Board to Bulletin No. 12 "Report on the investigations into the possibility of Match Industry in Bihar and Orissa" by A. P. Ghose, M.S.C.I. (Lond.), issued by the Department of Industries, Bihar and Orissa.

The veneers and match splints of the species tested under this investigation are now in the Museum of this Institute and can be seen by the Board if they so desire.

5. The Government of Bihar and Orissa have recently instituted a match factory at Gulzarbagh and in this factory are being tested the various timbers which have been suggested as suitable in the above publication.

6. The Wood Working Institute, Bareilly, has also installed match machinery with the idea of trying out the timbers available in the United Provinces and encouraging match making as a cottage industry.

The results of the tests made at these two institutions might prove of value to the Board.

7. A factory in Lahore was also started some two years or more ago with the help of the Chief Conservator of Forests, Punjab, with the object of using coniferous timbers for match making. As this was the first and only attempt made in India, to use coniferous wood, the results may be of interest to the Tariff Board.

8. In addition to the above I would also suggest that the Board address the various match factories in India and obtain their opinion on the species which they have tried and their experience as to the availability of supplies.

9. This Institute would be pleased to draw up a note on the information it has collected during the past five years or so concerning the Match Industry in India and the conclusions drawn from its observations on this industry, for submission to the Board or to give evidence should the Board so desire.

If such note is required I request you will kindly let me know the latest date by which it can be submitted as it will be necessary to carry out some enquiries before it can finally be drawn up.

(2) Letter dated the 11th April 1927.

In compliance with the request contained in your letter No. 108, dated 20th January 1927, I have the honour to forward herewith copy of a note by the Forest Economist on the Match Industry in India with special reference to the use of Indian timbers.

Note for the Tariff Board on the information collected by the Forest Research Institute, Dehra Dun, on the Match Industry in India, with special reference to the use of Indian timbers.

An enquiry into the existence of indigenous timbers in India suitable for match making was started as far back as 1893. Much the same timbers were then tried as are now being considered. Of these the outstanding woods were spruce, silver, fir, *semul* (*Bombax malabaricum*) and *geon* (*Excaecaria Agallocha*).

2. In 1897 the Bengal Assam Safety Match Manufacturing Company used almost only *geon*, even as to-day the Karimbhoy Shamsuddin Match Factory in Calcutta does. Early in the 20th century spruce and silver fir were sent home to a certain match manufacturer in England for trial. The former was reported to be suitable and the latter unsuitable, but it was stated that the factory concerned did not consider it advisable to take up match manufacturing in India at that juncture.

3. *Semul* has been used for many years in most of the factories in India; it is not a good timber for match splints though it is suitable for boxes.

4. In 1910, Professor Troup, the then Forest Economist at the Forest Research Institute, Dehra Dun, wrote his Indian Forest Memoir on "The Prospects of the Match Industry in the Indian Empire." This contained a large amount of useful information of which some has, however, in the light of further experience been proved to be mistaken. The year before this Memoir was written a variety of Indian timbers had been collected and sent to Germany for trial for matches. These were sent to the makers of match machinery, who proved to be human in that they consider their own interests before strict accuracy, and reported as eminently suitable for making into matches, by their machinery, many timbers that are not so.

5. This comparative perfidy was not suspected by the officials in India and in Professor Troup's Memoir, these reports were given credence which they did not deserve, with the result that certain timbers were recommended to be suitable for the purpose under consideration which were not so.

6. I give below a list of Indian timbers which have, at one time or another, been reported as useful for match making, by actual manufacturers in India, but it must be borne in mind that experience has shown that a timber which in one locality is considered to make a good splint in another is reported as being only useful for boxes, and again the same timber from the same locality is sometimes reported by one maker to be satisfactory and by another in the same town to be unsatisfactory for the purpose in view. I have remarked below on those woods as to the suitability in view. I have remarked below on those woods as to the suitability of which there now seems to be little doubt.

List.

Species.	For splints.	For boxes.
<i>Bombax malabaricum</i> (semul)	poor	good
<i>Bombax Insigne</i> (dida)	"	"
<i>Cmelina arborea</i>	...	fair
<i>Sterculia campanulata</i> (papita) (probably the Shawbya of Burma)	fair	good
<i>Spondias mangifera</i>	"	fair
<i>Excaecaria Agallocha</i> (geon)	good	good
<i>Albizzia stipulata</i>	"	"
<i>Mangifera indica</i> (mango)	very good	...
<i>Populus euphratica</i> (river poplar)	fair	good
<i>Populus ciliata</i> (hill poplar)	"	...
<i>Lophopetalum Wightianum</i>	good	good
<i>Holigarna Arnottiana</i>	fair	fair
<i>Trewia nudiflora</i>	"	"
<i>Stereospermum chelonoides</i>	"	"
<i>Sarcocephalus cordatus</i> (probably the Mau-lettan-she of Burma)	"	"
<i>Odina Wodier</i>	...	satisfactory.
<i>Alstonia scholaris</i>	fair	fair
<i>Boswellia serrata</i> (salai)	"	"

<i>Species</i>	<i>For splints.</i>	<i>For boxes.</i>
(Though a poor timber for the purpose is liable to be used considerably in the future owing to its prevalence and the fact that it grows in almost pure forests within reasonable distance of Bombay)		
<i>Buchanania latifolia</i>	fair	...
<i>Symplocos</i> spp.	good	...
<i>Pinus excelsa</i> (blue pine)	very good	...
<i>Picea Morinda</i> (spruce)	good but difficult to work.	...

7. Again an outstanding feature of this difficult question is that a timber may be reported by, let us say one of the factories controlled by the Swedish Match Co. as being poor, whereas it may be stated by one of the Indian factories in, let us say Calcutta, to be good. The point is that in all probability the one manufacturer is comparing it with imported Aspen, which he uses almost exclusively for splints, while the other is comparing it with an Indian timber, such as *Semul* which he may have been using almost exclusively in the past.

8. There is little doubt however that there is not a timber in India produceable at a competitive price, if indeed one exists at all, that can be compared with Aspen for making splints and that therefore *if a first class match is to be made in this country it will have to be of imported timber*. It is possible of course that during the search for such a timber, that has now lasted for over 30 years, a suitable timber which does exist has been overlooked, but this is unlikely. And it is reasonably certain that no such timber does exist in sufficient quantities to be of any immediate use as a substitute to replace Aspen entirely.

9. There are indeed many Indian timbers from which matches can be made, and these matches are good enough for all practical purposes, but even so they cannot at present be delivered in sufficient quantities or with sufficient certainty for it to be anything but dangerous to the industry as a whole to attempt to do without imported Aspen. There are certain factories that even now do claim to use only Indian timbers, but these are usually specially placed with reference to supply and cannot be taken as general examples. I refer to such factories as Karimbhoy Shamsuddin's in Calcutta, which gets its supplies of *geon* (*Excaecaria Agallocha*) from the Sunderbans at unusually cheap rate, Adamjee Hajee Dawood's in Rangoon which gets reasonably priced timber from the Burma and Andamans forests, and to certain North Indian factories which use only Indian timbers owing to the fact that they would have to pay railway freight on timber imported at any sea port.

10. It is therefore clear that imports of Aspen and other suitable timbers will have to continue until a sufficiently reliable supply of Indian timbers becomes available for ordinary matches, and that even when that stage has been reached Aspen will still be necessary for the manufacture of what may perhaps be termed the luxury match.

11. At present the supply of Indian timbers falls far short of the total demand.

12. There are two major difficulties in the way of making the supply; the first is that the timbers which are suitable do not grow in pure forest but are scattered amongst a number of other miscellaneous species; this greatly increases the cost of extraction and renders the price that must be paid for the timber excessive; and the second is that a great part of the suitable timber grows in inland forests from which the only lead to the factory is by railway on which freights are excessive, whereby again the cost of the timber is raised.

13. The solution of the difficulty is for the match factories to make plantations for themselves of the timbers they wish to use. This involves a wait of

anything from 7 to 12 years before their supply is assured and also a considerable outlay of capital.

14. Therefore, unless the industry is assured of protection from unfair competition for a number of years, it will obviously not be possible for individual manufacturers to go to the length of making such plantations.

15. Again it cannot be said that the best type of timber to be planted for this purpose has yet been finally decided, and it would seem strongly advisable that the Forest Department in the various provinces in which match manufacturing is of importance, should without delay start experimental plantations with the object of showing that suitable timbers can be grown in a reasonably short space of time, and at a reasonable cost. In Bihar and Orissa such plantations have, I understand, already been started under the auspices of Mr. Nicholson, the Forest Research Officer of that province and their example might well be followed by other provinces. Similar plantations might also with advantage be initiated at the Forest Research Institute, Dehra Dun.

16. In the meantime investigations are proceeding, at the Economic Branch of the Forest Research Institute, into the suitability of various timbers for match making. More especially at the moment, is the possibility of rendering spruce and silver fir fit for splints occupying our attention. The supplies of these timbers that can be made available are so great, amounting as they do probably to many thousands of tons per annum, that the matter of utilising them is one of considerable importance; further, the owners of the forests which contain spruce and silver fir are anxiously seeking a market which does not at present exist for these species.

17. The difficulty of utilizing them lies largely in the fact that the timber when dry is too hard to cut cleanly on a rotary veneer. The time that elapses between felling and delivery at any existing factory in the plains is somewhere between nine and eighteen months, during which time, even though water-borne spruce and silver fir dry out. Soaking and boiling in water have both been tried without success and now experiments in boiling the timber *under pressure* are being carried out in the hope that sufficient penetration will thus be obtained to render it workable.

18. If this is not successful it is possible that the solution of the difficulty will lie in the erection of special factories for cutting splints and veneers in the forests, immediately after felling, while the timber is still green. These splints and veneers would then be distributed to various finishing factories in the plains.

19. Were such factories to be instituted on a large scale they would probably supply all the requirements of North India but it is questionable if the railway freight would not make it impossible for them to compete with imported timbers further south. One company, in the Central Provinces, is already considering the installation of portable splint mills in the forests so as to economise in cost of supplies of splints and veneers.

20. There is one of the Himalayan conifers of which there are large supplies which is certainly suitable for making splints and that is *kail* (*Pinus excelsa*). But there is already sufficient demand for this timber to make the price prohibitive for competitive working.

21. From the statistics available to the Tariff Board, it will be easy for them to see the extent to which the match industry has grown in India during the past few years, that is to say since the imposition of the import duty on matches and, again, of the further duty on match splints and veneers.

22. There are a large number of factories now situated in various parts of India and working, in the main, at a small profit. The Japanese trade in matches has almost died out though incidentally, the imports from Europe have to a certain extent correspondingly increased.

23. Match manufacturing is therefore extending in India, and various examples of the proposed erection of new factories or the extension of existing ones have come to my notice in the past few months. There can however be no real advance in this industry until the commercial public feel secure,

and there is little doubt that there are combinations in the world strong enough to break, should they wish to do so, the industry in this country, if it is not assured of the continued support afforded by the import duty.

24. The advantages to India of the industry are obvious, involving continuous employment for a large number of workmen and women the retention of capital in the country, and the utilization of large quantities of more or less valueless timbers belonging to both private owners and the State.

25. Apart, however, from any such support as may be given by an import duty there is one way by which the Indian match manufacturer can help himself, and this point needs emphasis. There is no doubt that a large number of matches made in India by Indian companies are not up to the standard of those made in India by foreign companies or imported from Europe. The difference is not only that of the timber used but is also largely the composition of which the heads are made, and the fact that the dipping is badly done or is so constituted as to be ineffective during the monsoon. The principle of self-help is a very old one and it should be a condition of continued support from Government that Indian match manufacturers should help themselves and prove their efficiency by showing that they can produce as good a match in India as any one else. The firmly established prejudice against a match with a coloured splint, which exists in the minds of the public, undoubtedly owes its origin to the fact that originally practically all the discoloured matches that were sold were of Indian manufacture and they were so badly made that many of them did not ignite when struck. The public thus arrived at the conclusion that a match with a white splint which was an imported match, was preferable.

26. The conclusions I would draw therefore are as follows:—

- (1) That it would seem advisable to retain or possibly increase the present duty on imported matches, imported splints and imported veneers.
- (2) That no special duty should be imposed upon the import of timber in the log for the manufacture of splints and veneers in India, at all events until such time as a sufficient supply of indigenous timbers is made available for the manufacture of all but luxury matches.
- (3) That the formation of plantations of match timbers by single factories or groups of factories should be encouraged by such means as special grants of land, advice as to species and methods of planting, etc.
- (4) That, further, experimental plantations of timbers considered suitable should be made by the Forest Departments of the various provinces interested, and also by the Forest Research Institute at Dehra Dun.
- (5) That special facilities and necessary financial support should be given to the Forest Research Institute at Dehra Dun for the purpose of extending their investigations into the suitability and availability of match timbers indigenous in India.
- (6) That the advisability be considered of establishing a Government factory in the Himalayas for the purpose of making and distributing splints and veneers of spruce and silver fir to various factories in the North of India, provided first that the possibility of cutting spruce and silver fir on a rotary veneer while yet green be fully established.
- (7) That it is essential if the industry is to attain a really healthy condition that the Indian manufacturer should not indulge in any false economy in the matter of quality and quantity of his dip, and should take every precaution to see that he produces as good a match as does his European competitor in India. It is of course recognized that certain Indian manufacturers already work up to this standard, but to kill the prejudice against Indian matches it is necessary that all should do so.

- (8) Seeing that there is a real difficulty in the matter of supply of timber for match making those interested should be strongly advised to consult the Forest Department as to the possibility of getting their requirements of timber *before* they take any active steps in the matter of establishing new factories in any particular localities. We frequently have demands made on us for supply of match timbers after the erection of the factory has become an accomplished fact, in a locality within reach of which no such timber grows.

Chief Forest Officer, Andaman Islands.

Letter from the Tariff Board, to the Chief Forest Officer, Andaman Islands, Port Blair, dated the 9th April 1927.

I am directed to invite a reference to the attached copy of a letter addressed by the Indian Tariff Board to all local Governments and to that of the reply received thereto from the Government of Burma, and to say that the Board, during the course of the enquiry now proceeding into the circumstances of the Match-making Industry, has learned that certain of the match factories situated in Rangoon import some of their supplies of timber from the Andaman Islands. This fact is of considerable interest to the Board, and I am, therefore, to ask you to be so good as to furnish it with detailed information in answer to the following questions:—

- (1) The existence, quantity and suitability of wood for the manufacture of—
- (i) splints,
 - (ii) veneers, and
 - (iii) packing cases.
- (2) The proximity and accessibility of the source of supply of such timbers to Port Blair or any other port of export.
- (3) Have consignments of such woods been exported to India or Burma in the past? If so, please give the quantities—if available—which have been so exported during the last three years.
- (4) Have such consignments been extracted and exported by Government agency or by contractors? In either case please state:—
- (a) the price f.o.b. port,
 - (b) the cost of freight to Rangoon, and
 - (c) the cost of freight to Calcutta.
- (5) If by contractors, what are the conditions under which permission for extraction is given?
- (6) What is the royalty levied on the different species?
- (7) What quantities of wood suitable for the manufacture of splints or veneers could be exported annually and in accordance with the forest working plans from the Andaman forests at a price not exceeding Rs. 35 per ton of 50 cubic feet landed at Rangoon? In your answer please specify the different kinds of wood and the tonnage of each.
- (8) Have any concessions for extracting timber for the manufacture of splints, veneers or packing cases been granted? If so, to whom?
- (9) Has the Forest Department undertaken or is it likely to undertake in the near future any operations for the establishment of plantations of trees suitable for the manufacture of matches in the forests under your charge?
- (10) Have any areas accessible to Port Blair or any other port of export been planted with suitable trees by any outside agency?

(11) What are the conditions of transport from the forests in which suitable timber is found to the port of export:—

(a) during the monsoon;

(b) during the dry season;

and what is the cost of transporting the timber by each of any methods which may be employed?

2. I am to add that the Board would be glad if your answers to these questions could be sent by the 16th May 1927.

Letter from the Chief Forest Officer, Andaman Islands, dated the 17th May 1927.

With reference to your letter No. 301, dated the 9th/12th April 1927, I have the honour to reply as follows:—

(1) As the demand for these timbers has only recently sprung up, no enumerations are available of the quantities of suitable woods for match manufacture but as a rough estimate I give 3 tons per acre over 1,500 square miles of forests, i.e., 2,880,000 tons say 144 million cubic feet but it is probably more.

The only information I have of the suitability of timber for the different purposes has been obtained from Messrs. Adamjee Hajee Dawood & Co., Rangoon, who inform me that Dhup (Canarium euphyllum) is the most suitable wood which they have found for making match boxes and Sterculia campanulata for splints. I cannot give an estimate of the quantity of these woods available in the Andamans, they probably amount to 1/3rd of the available supplies given above.

(2) Exploitation is not very difficult from any part of the Andamans as most of the timbers float and can be rafted. There are quite a number of good harbours where it can be shipped. The timber is now in the first instance carried by a Forest Department steamer to Port Blair or rafted to Stewart Sound and thence exported to Burma or India by the Government steamer. The sources can be tapped throughout the year by continual shifting of extraction camps to suit the different seasons.

(3) The following are the exports during the last year:—

	Papita. Tons.	Dhup. Tons.
To Rangoon	1,151	3,494
To Calcutta	598	nil.

(4) The timber is being extracted by Government Agency.

No timber has been sold at f.o.b. rates.

Present price c.i.f. Rangoon is Rs. 35 for Papita and Rs. 40 for Dhup. Freight is Rs. 10 for Papita and Rs. 12-8-0 for Dhup. This low freight was fixed in order to enable us to establish a demand for the timber but these rates are likely to be increased in the future.

The timber is sold in Calcutta at Rs. 37-8-0 and the freight is Rs. 12-8-0 per ton.

(5 and 6) There are no contractors and hence no royalty is charged.

(7) No working plan for these timbers is at present in existence but I estimate that 5 to 6,000 tons could be exported annually at present and 5 or 6 times that amount if sufficient transport to India or Burma were available.

I regret I have no figures for the different kinds of wood but include Sterculia campanulata, Sterculia alata, Canarium euphyllum, Bombax malabaricum, Tetrameles nudiflora, Sterculia villosa and a few other species in the estimate given in paragraph 1. I hope the price of timber will go up to Rs. 50 per ton c.i.f. Rangoon or Rs. 60 c.i.f. Calcutta as present prices leave little profit.

(8) No concession has been given but the forest department has agreed to supply about 5,000 tons this year to Rangoon and 2,000 tons to Calcutta.

(9) The forest department has made experiments with plantations of canarium euphyllum mixed with other timbers but sufficient data for the purpose of answering the enquiry of the Tariff Board are not available. Nearly every part of the Andamans outside the settlement, which is some 50 square miles is under forests.

(10) No land is available for plantations of matchwood by private agency.

(11) Timber is brought to Port Blair by a forest department steamer at a cost of Rs. 4 per ton and can be thus transported all through the year.

General conclusion.

I am of opinion that the establishment of a factory locally would be the most economical in the long run for the freight of timber will be too high to allow large quantities to be exported as there is very little inward cargo. That low freight has been secured at present is due to the fact that a Government steamer would go empty once a month to Rangoon without the cargo of logs. This, however, is not likely to last and the ruling commercial rates under similar conditions must be taken as a basis for calculating freight for the future. Logs take up too much space in a ship to allow of this cargo being carried at a low freight rate.

A site for a factory would probably be given free by Government. The main difficulties against establishing a factory locally are that skilled labour would have to be imported and the supply of chemicals, etc., can only come to the Andamans by the Government steamer which leaves Calcutta and Rangoon about once a month. Including royalty a steady supply can be assured at about Rs. 30 per ton delivered in a factory in the Andamans, the cost would probably be less in the beginning. Labour would perhaps cost Re. 1 per diem for adults with corresponding reduction for women and children. Skilled artisans would perhaps average double this amount.

It seems to me that the most important factor for the successful working of a match factory is that timber supplies are always available so that the factory can be run at all times to its full capacity. The supplies of chemicals and labour can be arranged with good management. Freight for the finished product is always available but stocks would have to be kept in Calcutta and Madras. Freight for the finished product should not exceed Rs. 10 per ton of 50 cubic feet as the cases are small and pack well in the ship's hold.

Collector of Customs, Rangoon.

(1) Notes handed on 30th March 1927.

The import and export of matches, and the materials for the manufacture of matches: also the local industry of matches in Burma.

Matches.

Two statements are attached. The imports for six years, i.e., from 1921-22 to 1926-27 and the exports for the quinquennial period; it was during this period, that the local industry was first established.

From the export statement, it will be seen that the local industry had practically begun in 1922-23, for, during the succeeding years, this commodity was exported to other countries. The value, being in the first year Rs. 8,500 gradually increased to almost five lakhs. A corresponding decrease in the imports will be noticed during these years, for the value which in the year 1921-22 was Rs. 31,26,117 fell to Rs. 14,19,108 in 1926-27.

It will also be noticed for the purpose of the match industry that, splints, veneers, and logs were imported in the years 1924-25 and 1925-26. But during the last year, only logs to the value of Rs. 1,35,000 were imported against 'nil' for splints and veneers. The reason is that a suitable class of wood has been discovered in Burma for this purpose.

Foreign matches were also imported from Indian ports during these years, but even these figures indicate a considerable reduction since the value dropped from Rs. 2,09,806 in 1921-22 to Rs. 42,962 in 1926-27. The Indian produce has also shown a corresponding decrease.

There are in all five factories in Burma aggregating an output of one hundred and fifty cases a day, of which a hundred cases are manufactured by Messrs. Adamjee Hajee Dawood and Company the largest manufacturers in Burma. Each case contains fifty gross boxes and the local prices range from Rs. 80 to Rs. 95 per case.

Matches imported from Siam *via* Kawkareik are now assessed to duty under the Land Customs Act, at the same rate of duty on those imported by sea. Several reports have, however, been received that matches of Chinese manufacture are being imported across the Chinese frontier into the Northern and Southern Shan States. These quantities are reported to be limited and are consumed in the Shan States and not carried further into Burma.

The local wholesale price of Japanese matches is between Rs. 110 to 120 per case of 50 gross boxes landed c.i.f. price being about Rs. 35 to Rs. 40 per case of 50 gross whereas the c.i.f. cost of Swedish matches is about Rs. 45 to Rs. 50 and the selling rate about Rs. 130 to Rs. 135 the invoice price being about 1s. 6d. a gross.

(2) *Letter dated the 16th April 1927 from the Collector of Customs, Rangoon.*

I have the honour to enclose herewith for your information and for such action as you may find necessary copies of letters received from two of the leading match manufacturing firms in Rangoon regarding the alleged smuggling of matches into Burma from China *via* the Shan States.

Copy of letter dated the 15th March 1927, from Messrs. Adamjee Hajee Dawood and Company, Limited, Rangoon, to the Collector of Customs, Rangoon.

We have the honour to inform you that our Agent of the Thazi Branch reports that matches bearing the label enclosed herewith are being imported into the Shan States from the Chinese Borders *via* Loilem and are being sold there at very low prices, and therefore it is not possible to sell our matches there.

We shall thank you if you will kindly make necessary enquiries into the matter.

We also send herewith a match box bearing the said label for your reference.

Copy of letter dated the 9th April 1927, from the Kemmendine Match Company, Limited, Rangoon, at the Collector of Customs, Rangoon.

We have the honour to quote below extract of a letter received from our Hongkong Representative, for your information:

"The chief brand which is imported into Burma *via* Bangkok is as enclosed being a tiger looking at a rising sun and which is known to us as 'Tiger and Sun' or 'Tiger.' About 800 50-gross cases a month of this brand are shipped north for distribution throughout the very northerly section of Siam, Indo-China and Shan States. It seems probable that these matches find their way into Burma *via* China, so there may be no actual smuggling from Siam into Burma on a large scale, as this is carried out by taking them into Indo-China (where the French do not dare to enforce duties on account of the savage tribes) and from there into Burma; should you find that there is no duty on goods imported from Indo-China and China into Burma it would appear safe to assume that practically all matches going into northern Burma

do so *via* this route. I find also that there are a large number of minor routes for smuggling matches into Burma along the very southerly border of the two countries and I am told on good authority that there is a steady though small traffic across the border into the country around Tavoy; this is only one of the many less known passes where illicit traffic is carried on."

We specially draw your attention to the minor routes of smuggling mentioned by our Hongkong Representative and particularly across the border around Tavoy. In this connection we also beg to inform you that we have sent one of our canvassers to Mergui and Tavoy with instructions to investigate this matter as far as possible.

We also confirm our verbal information that we have received a report from one of our dealers in Hsipaw to the effect that not less than 5,000 tins of matches under the label "Tiger and Sun" have arrived in this and adjoining towns. This matter is being investigated by us and we shall revert in due course.

(3) *Letter, dated the 26th April 1927 from the Collector of Customs, Rangoon.*

In continuation of my letter No. 4733-C.-2, dated the 16th April 1927, I have the honour to forward herewith a copy of a letter together with its enclosure received from the Kemmendine Match Company, Limited, Rangoon, on the above subject.

Copy of letter, dated the 22nd April 1927, from the Kemmendine Match Company, Limited, Rangoon, to the Collector of Customs, Rangoon.

We have the honour to refer to our representative's call on you to-day, when the question of Border Trade between China and Burma was discussed. In this connection we beg to enclose herewith copy of a letter received from our Chief Travelling Inspector, who has lately visited the places where this Border Trade is carried on. We believe that at present nothing can be done in the matter, but in view of the circumstances reported in the accompanying letter, we trust that you will be able to do something, as this trade, if it increases as it is doing, is liable to seriously affect the importers who are paying a very high percentage of duty and who therefore should be protected as far as possible. We have the honour in consequence to approach you for your help and action in stopping this growing border trade.

Thanking you in advance for an early and favourable reply on this subject.

Copy of letter from the Chief Travelling Inspector, dated the 16th April 1927, Mandalay.

Border Trade between China and Burma.

I beg to submit a further report on the border trade between China and Burma, with regard to Kyaukme, Ksipaw, Lashio.

The dealers of these three towns report that approximately 5,000 tins of matches have been purchased from the Muleteers by the Chinese dealers of these towns during the month of March, and that this trade is regularly conducted between the months of December and middle of April each year.

In order to try and check the quantity mentioned above I visited all the dealers in each town on my outward journey and took their stocks and the same on my return journey shows the following:—

Kyaukme.—Outward journey, 55 tins. Return journey, 26 tins which shows that 29 tins were sold during 5 days.

Ksipaw.—Outward journey, 730 tins, Return journey 479 tins which shows that 251 tins were sold during 4 days.

Lashio.—Outward journey 79 tins, Return journey 60 tins, which shows that 19 tins were sold during 2 days.

Basing the monthly sales on the above figures, it is evident that approximately 2,334 tins of matches brought over the border have been sold in one month in the 3 towns mentioned above.

The dealers report that they do not expect further supplies until about the end of next December, as the rainy season is almost fast approaching and the Muleteers are returning to China before the rains.

These matches are brought over in tin packing already made up into packets for the Burma market. On the end of the tin is pasted a label written in Japanese, under which is a triangle with a capital "A" printed, and underneath that is written Hong Kong, with a small label the writing of which says Passed Matches, by the Nippon Match Manufacturers Association Inspection Bureau, Japan.

The above label shows that these matches are manufactured in Japan, and the dealers report that they are brought up by rail to Chieng Mai, which is the rail head, then on to Kenytung, and on by various routes through the jungle to Hsipaw.

While in Lashio, I called on one or two Government officials whose duty takes them to the Chinese frontier and surrounding jungle, and they report having seen large convoys of not less than 50 miles carrying matches, and which have been distributing from a town on the frontier called Mongnai. For purpose of calculating the quantity carried in each convoy, a mule carries six tins of matches, which brings the total seen in one convoy alone to 300 tins, and which the English official reports having seen such convoys on numerous occasions.

The last season shows another label being introduced into the Burma market, which is known in Chinese as "To Hoe" brand, but the dealers report unfavourably about this label and anticipate it will not be brought into this country during the next season.

I have despatched under separate cover a few samples of the match imported together with three ends of the tins they are packed in, which shows the above writings.

I find it very difficult to understand the actual routes taken by the Muleteers, as the Chinese dealers each mention different routes and names of towns or villages, but the English officials of Lashio are of the opinion that Kentung and Mongnai would be suitable places to sit down and check the quantities arriving over the border, they also state that the routes over the border from Unan are very difficult to traverse, and they have not noticed any trade worth mentioning from this quarter.

Excise Commissioner, Burma.

Letter dated the 22nd April 1927.

I have the honour to return herewith the copy of the record of my evidence received with your letter No. 305, dated the 12th April 1927. My corrections to the record are in red ink.

2. I also enclose a short note on the collection of an excise duty on matches, as promised.

Note on the collection of an excise duty on matches.

I have visited the four match factories in Burma. All manufacture is conducted in factories and there is no manufacture of matches on the Cottage Industry scale here. It is therefore somewhat difficult to frame proposals which will cover Cottage Industry manufacture, and it is possible that the methods of collecting duty suggested below may not be applicable to conditions in other provinces. It seems to me, however, that if it is difficult to collect duty on matches manufactured under the Cottage Industry system and if it is essential to obtain revenue from matches manufactured in India, it would be better to abolish the Cottage Industry altogether and to issue

licenses to manufacture matches only to big factories capable of supporting a whole time Excise Officer in charge.

2. So far as large factories are concerned, there should be no difficulty in assessing and collecting an excise duty. The best method seems to me to be to assess the duty on issues from the factory, as shown in the manufacturers' books, which should be checked by a Resident Excise Officer. As an additional safeguard, all completed packets of matches should be placed in a warehouse under double locks, one key being kept by the Excise Officer and all matches not yet packed should be placed every night in a secure compartment which would similarly be under double locks. Issues from the warehouse would be made on gate passes issued by the Resident Excise Officer after payment of duty.

3. The smaller manufacturers in Burma object to the system of pasting a stamp round every box being introduced. They say that if this is done by hand, it will add considerably to their cost of production, and that if it is done by machinery after the boxes are filled there will be danger of fire from concussion with the machinery. There is also the difficulty that the stamps might be removed by small shop-keepers and used again by unscrupulous manufacturers and the difficulty of dealing with imported matches under such a system. It seems probable also that the cost of maintaining a watch for unstamped match boxes offered for sale in petty retail shops all over the country will be higher than the cost of supervision at the source. Moreover the opportunities which a stamp system will offer to subordinates for harassing petty shop-keepers may tend to make the Excise duty very unpopular. I am therefore of opinion that this system would be unsatisfactory and should not be adopted.

4. For each factory the staff required would be one Excise Inspector on a salary of Rs. 175—10—295 and a peon on Rs. 17—21. The average cost of this establishment would be roughly Rs. 3,000 per annum for each factory. If we assume that the cost of establishment to collect the excise duty should not exceed 5 per cent. of the duty, it follows that each factory should be capable of producing sufficient matches to pay Rs. 60,000 per annum in duty. If this duty is fixed at 8 annas per gross of boxes no factory should be licensed to manufacture matches unless it is capable of producing 120,000 gross of boxes per annum, and failure to produce that quantity in any year should be regarded as a good ground for refusing to renew the license in the following year.

5. As regards Cottage Industry manufacture, this could be taxed by means of a composition duty, based either on the implements employed or on the raw materials purchased, and fixed at a rate equivalent to the direct duty rate. A similar system is in force in connection with salt in Burma. A direct duty is levied on salt manufactured in proper factories in coastal districts in Lower Burma while a composition duty based on the number and size of the cauldrons used for boiling is collected in Upper Burma. I understand that the Cottage Industry match manufacturer must have a frame in which to fix the match splints before they are dipped, that he may also have a chopping machine for making splints, and that he has to purchase veneer from a large factory. A composition duty might be assessed on the number of frames and chopping machines used or on the quantity of veneer purchased. The frames and chopping machines would be of fixed sizes, and the average output of each machine could be estimated and the rate of duty fixed to make it approximate to the direct duty. If the duty was based on the quantity of veneer purchased the average output from a certain quantity of veneer could be similarly estimated. Licensed Cottage Industry manufacturers could be compelled to purchase their veneer from a big licensed match factory and the quantity purchased could be checked by the Resident Excise Officer at the big factory. The Resident Excise Officer at the nearest big factory could probably find time to inspect these Cottage Industries and see that no unlicensed implements are being used and that full duty is being paid. In that case no extra staff could be necessary.

Messrs. Martin and Company, Calcutta.*Letter dated 26th October 1927.*

With reference to the enquiry into the Match industry, and the local evidence recently given, we have not been able to see a complete report of this but only the short newspaper report; we have been informed however that some reference has been made to a shortage of suitable indigenous timber for match making purposes.

Should this information be correct we wish to point out that this evidence is not in accordance with facts. We are the representatives of the Government of India for the local sale of Andamans timber and in that capacity we dispose monthly of large quantities of papita logs to the local match making firms. Present deliveries could be increased somewhat under the present shipping arrangements but in the event of much increased demand further shipping facilities would be required when there would probably be no other difficulty. Of course if a very large supply were called for then possibly the question of extra labour in the Andamans forests would arise.

Large quantities of papita are at present being supplied under monthly contract direct to the Rangoon match firms from the Andamans. In addition to this timber there are other species suitable for other uses in the industry as dhup which is useful for match boxes.

We are informed by the Chief Forest Officer, Andamans that the supply of papita is practically unlimited.

If we can give the Board any other information on this head we shall be glad to do so.

Messrs. Steel Brothers and Co., Limited, Rangoon.*Letter dated the 24th March 1927.*

At the request of the President, I have the honour to undernote for the Board's information rates quoted by the B. I. S. N. Co. for freight on round timber from Burma to the main Indian Ports, viz. —

	Rs.	A.	P.	
Calcutta	27	0	0	} All per ton of 50 c.ft.
Madras	34	4	0	
Bombay	45	0	0	

It will also, no doubt, be of interest that above rates are double what is charged for converted timber.

Letter from the Tariff Board, to Messrs. Mitsui Bussan Kaisha and Messrs. Eng Hing Hwat Bros., Rangoon, dated the 25th March 1927.

I am directed to say that under the orders of the Government of India the Tariff Board is holding an enquiry into the question of the grant of protection to the Match-making Industry in India and in this connection requires information regarding the price of imported Japanese matches. I am therefore to ask if you would be kind enough to supply the Board as soon as is convenient to you with a statement giving the annual average prices of imported Japanese matches c.i.f. Rangoon for the years 1912-13, 1913-14 and from 1921-22 to 1926-27.

Messrs. Mitsui Bussan Kaisha, Limited, Rangoon.

Letter dated the 30th March 1927.

With reference to your letter No. 246, dated the 25th instant, we have the honour to state below the annual average sale prices of imported Japanese matches c.i.f. Rangoon, for the years 1921-22 to 1926-27. The prices for the years 1912-13, 1913-14 are not traceable:—

	Rs.
1921-22	86 0 0
1922-23	66 1 0
1923-24	60 5 0
1924-25	49 2 0
1925-26	46 11 0
1926-27	49 15 0

The unit of prices is per case of 600 dozen boxes, full size.

Matches.

Messrs. Eng Hing Hwat Bros., Rangoon.

Letter dated 31st March 1927, from L. Choon Fong, Esq., Rangoon, to the Tariff Board, Calcutta.

With reference to your letter No. 246, dated the 25th March 1927 and addressed to my clients Eng Hing Hwat Bros., I have the honour to reply under their instructions as follows:—

Re 1912-13 and 1913-14, my clients are unable to furnish you with particulars as they had not then started their match business. They say that Messrs. Chip Hwat of No. 244, Dalhousie Street, Rangoon, may be able to enlighten the Board for that period.

Re 1921-22 to 1923-24, my clients state that they have already sent their account books to Eng Hing Hwat Bros. of Japan at No. 2, Strand Road, Japan.

In 1925, annual average price of imported Japanese matches ranged from 44 to 49 Yens per case for the 1st class matches and from 38 to 40 Yens per case for the 2nd class.

In 1926, the price was between 36 and 40 Yens per case for the 1st class and 32 and 36 Yens per case for the 2nd class.

In 1927, my clients have so far imported only 1st class matches and the prices range from 26 to 28 Yens per case.

The Kemmendine Match Company, Limited, Rangoon.

Letter dated 1st April 1927.

In response to your request to receive samples of imported Swedish matches as well as matches manufactured locally by the Burma Match Company, Limited, we send you herewith the desired samples. You will notice that most of the Swedish matches are of full size, and for your information we beg to inform you that we are at present not importing any other size to Burma, although we still carry a limited stock of $\frac{1}{2}$ size.

Our wholesale price of Swedish matches is at present Rs. 132 for 50 gross, Rangoon delivery. The ultimate retail price averages annas 3-6 per packet of 10 boxes. The wholesale price of local matches manufactured from Aspen wood (manufacture of this quality has now been discontinued) is Rs. 90 per 50 gross; the retail price in Rangoon is two annas per packet. The wholesale price of local matches manufactured from local wood is at present Rs. 84 per 50 gross and the retail price is two annas per packet.

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