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The applications, received by the Indian Tariff Board from the Tata Iron and Steel Company, Limited, and other companies in connection with the Statutory Enquiry, regarding the grant or continuance of protection to the Steel Industry in India after the 31st March 1927, together with the questionnaires issued by the Board and other relevant papers.



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TABLE OF CONTENTS.

	Page.
I. Press Communiqué issued by the Tariff Board on the 10th July 1926	1
II. Resolution issued by the Government of India in the Commerce Department No. 260-T. (64), dated the 3rd April 1926	2
III. Press Communiqué issued by the Tariff Board on the 16th April 1926	3
IV. Applications received by the Tariff Board dealing with Rolled Steel from the Tata Iron and Steel Company, Limited	5
Rolled Steel.	
V. Questionnaires issued by the Tariff Board dealing with Rolled Steel—	
(a) Rails and Fishplates	165
VI. Replies to the above questionnaires received from:—	
1. Railway Board	166
2. Assam Bengal Railway Company, Limited	167
3. Madras and Southern Mahratta Railway Company, Limited	168
4. Bombay, Baroda and Central India Railway Company, Limited	170
5. Bengal Nagpur Railway Company, Limited	173
6. East Indian Railway	177
7. Eastern Bengal Railway	183
8. Great Indian Peninsula Railway	185
9. South Indian Railway Company, Limited	187
VII. Questionnaires issued by the Tariff Board dealing with Rolled Steel—	
(b) Steel articles and materials other than rails and fish-plates	189
VIII. Replies to the above questionnaires received from:—	
1. Railway Board	190
2. Assam Bengal Railway Company, Limited	191
3. Great Indian Peninsula Railway	194
IX. General representations regarding the manufacture of Rolled Steel received by the Tariff Board from:—	
1. The Indian Iron and Steel Company, Limited	196
2. Messrs. Bird and Company	197
3. Messrs. Kirloskar Bros. Limited	199
4. Messrs. Richardson and Cruddas	201
5. Messrs. Geo. Service and Company	203
6. Chamber of Commerce, Madras	204
7. Burma Chamber of Commerce	205
8. Indian Chamber of Commerce	208
9. The Indian Engineering Association	208

Fabricated Steel.

	PAGE.
X. Applications received by the Tariff Board dealing with Fabricated Steel, including the manufacture of locomotive, railway carriage underframes, railway wagons, coal tubs, and tipping wagons, from:—	
1. The Peninsular Locomotive Company, Limited	213
2. The Indian Standard Wagon Company, Limited, and Messrs. Burn and Company, Limited	233
3. Messrs. Jessop and Company, Limited	252
4. Messrs. Parry's Engineering Limited	262
XI. Questionnaires issued by the Tariff Board to the Railway Board and Railways regarding—	
1. Railway wagons	265
2. Locomotives	268
XII. Replies to questionnaires regarding railway wagons, received from:—	
1. East Indian Railway	270
2. Eastern Bengal Railway	271
3. Great Indian Peninsula Railway	275
4. North Western Railway	277
XIII. Replies to questionnaire regarding locomotives, received from:—	
1. Great Indian Peninsula Railway	282
2. Madras and Southern Mahratta Railway Company, Limited	284
3. Eastern Bengal Railway	287
XIV. Questionnaire issued by the Tariff Board to the locomotive, carriage underframe and wagon builders	289
XV. Replies to the above questionnaire received from:—	
1. The Peninsular Locomotive Company, Limited	291
2. Messrs. Burn and Company, Limited	293
3. Messrs. Jessop and Company, Limited	307
Steel Castings and Spring Steel.	
XVI. Applications received by the Tariff Board dealing with the manufacture of Steel Castings, Spring Steel and fittings for railway wagons, from:—	
1. Hukumchand Electric Steel Works	309
2. The Angus Engineering Works	320
XVII. Questionnaire issued by the Tariff Board dealing with Steel Castings and Spring Steel	322
XVIII. Replies to the above questionnaire received from:—	
1. Railway Board	325
2. Eastern Bengal Railway	327
3. Madras and Southern Mahratta Railway Company, Limited	335
4. Assam Bengal Railway Company, Limited	339

Tinplate.

	PAGE.
XIX. Applications received by the Tariff Board dealing with the manufacture of Tinplate from:—	
1. The Tinplate Company of India, Limited	345
2. The Welsh Plate and Sheet Manufacturers, London	349
XX. Correspondence with the Tinplate Company—	
1. Letter to the Tinplate Company, dated 27th April, 1926	351
2. Letter from the Tinplate Company, dated 20/24th May 1926	351
3. Letter to the Tinplate Company, dated 24th May 1926	359
4. Letter from the Tinplate Company, dated 2nd June 1926	360
5. Letter from the Tinplate Company, dated 24th June 1926	361
6. Letter from the Tinplate Company, dated 28th June 1926	361
7. Letter from the Tinplate Company, dated 2nd July 1926	362
8. Letter from the Tinplate Company, dated 5th July 1926	384

Steel Wire and Wire Nails.

XXI. Application received by the Tariff Board dealing with the manufacture of Wire and Wire Nails, from the Indian Steel Wire Products, Limited	391
--	------------

Miscellaneous Letters.

XXII. Miscellaneous letters issued by the Tariff Board with replies where received—	
1. Hukumchand Electric Steel Works—	
(a) Letter from the Tariff Board, dated 5th May 1916	393
(b) Letter to the Tariff Board, dated 12th May 1926	396
(c) Letter to the Tariff Board, dated 12th May 1926	409
(d) Letter to the Tariff Board, dated 13th May 1926	410
(e) Letter to the Tariff Board, dated 13th May 1926	410
2. Messrs. Burn and Company, Limited, the Indian Standard Wagon Company, Limited, Messrs. Jessop & Co., Ltd., and the Peninsular Locomotive Company, Limited—	
Letter from the Tariff Board, dated 25th May 1926	420
3. Railway Board—	
(a) Letter from the Tariff Board, dated 29th May 1926	422
(b) Letter from the Tariff Board, dated 2nd June 1926	425
(c) Letter to the Tariff Board, dated 26th June 1926	425
(d) Letter from the Tariff Board, dated 4th June 1926	426
4. The Palmer Group of Railways—	
(a) Letter from the Tariff Board, dated 7th June 1926	426
(b) Letter from the Madras and Southern Mahratta Railway Company, Limited, dated 24th June 1926	427

	PAGE.
5. Director, Geological Survey of India—	
(a) Letter from the Tariff Board, dated 17th April 1926	431
(b) Letter to the Tariff Board, dated 30th April 1926	431
6. Messrs. Balmer Lawrie and Company, Limited, and others—	
(a) Letter from the Tariff Board, dated 17th April 1926	432
(b) Letter from Messrs. Balmer Lawrie and Company, dated 24th April 1926	432
(c) Letter from Messrs. Burn and Company, Limited, dated 7th May 1926	434
(d) Letter from Messrs. Richardson and Cruddas, dated 23rd April 1926	437
(e) Letter from Messrs. Jessop and Company, Limited, dated 14th May 1926	439
(f) (i) Letter from Messrs. Anandji Haridas and Com- pany, dated 20th May 1926	441
(ii) Letter from Messrs. Anandji Haridas and Com- pany, dated 7th June 1926	444
(g) Letter from Messrs. Geo. Service and Company, dated 8th May 1926	444
7. Messrs. Jessop and Company and others—	
(a) Telegram from the Tariff Board, dated 12th May 1926	445
(b) Letter from the Peninsular Locomotive Company, Limited, dated 13th May 1926	445
(c) Letter from the Peninsular Locomotive Company, Limited, dated 19th May 1926	446
(d) Letter from Messrs. Jessop and Company, Limited, dated 13th May 1926	446
(e) Letter from the Tariff Board, dated 17th May 1926	446
(f) Letter from Messrs. Jessop and Company, Limited, dated 21st May 1926	447
8. Government of India, Department of Commerce—	
(a) Letter from the Tariff Board, dated 6th May 1926	447
(b) Letter from the Government of India, dated 29th May 1926	448
9. Government of India, Army Department—	
(a) U. O. reference from M. G. S. Branch, dated 12th May 1926	449
(b) Letter from the Tariff Board, dated 20th May 1926	449
(c) Letter from the Director of Ordnance Factories and Manufactures, dated 31st May 1926	450
(d) Letter from the Tariff Board, dated 15th June 1926	450
(e) Letter from the Master General of Supply Branch, Army Headquarters, dated 24th June 1926	450
10. Government of India, Department of Commerce—Letter dated 29th May 1926	451

Press Communiqué.

Calcutta, the 14th July 1926.

In accordance with paragraph 5 of the Press Communiqué issued by the Indian Tariff Board on the 16th April, 1926, in which it was stated that the applications received by the Board from persons or firms in connection with the Statutory Enquiry regarding the grant or continuance of protection to the Steel Industry in India after 31st March, 1927, together with the Board's questionnaires and the replies thereto would be printed and published, the Board now announces that the applications, etc., have been printed and can be obtained from the Manager, Government of India, Central Publication Branch, Calcutta, or all Provincial Government Book Depots and authorized Booksellers, price annas 8, and that the written representations of those who wish to support or oppose the grant or continuance of protection are now invited. Such representations (with 6 spare copies) should be addressed to the Secretary and reach the office of the Board at No. 1, Council House Street, Calcutta, not later than the 24th July, 1926, together with an intimation whether the sender desires to be orally examined by the Board.

C. B. B. C.I.E.E.,
Secretary, Tariff Board.

**Resolution issued by the Government of India, Department of
Commerce, No. 260-T. (64), dated Delhi, the 3rd April 1926.**

The attention of the Tariff Board is drawn to the fact that the Steel Industry (Protection) Act, 1924, will expire on the 31st of March 1927, and it is requested to re-examine the measure of protection afforded to the various articles covered by the Act and by Act VIII of 1926. It will report in respect of each class of article, whether it is still necessary to continue protection, and if so, whether the measure of protection now given should be increased or diminished or whether the form of the protection given should be altered. In making its recommendations, the Tariff Board will take all relevant considerations into account, including that stated in part (b) of the Resolution adopted by the Legislative Assembly on the 16th February 1923, and if it thinks that in any case the assistance required can most suitably take the form of bounties, the source from which the money for the bounties can be obtained should be discussed. In dealing with the Tinsplate Industry the Board will bear in mind its own observations in paragraph 31 of Chapter IV of the second portion of its First Report. The Board will also be at liberty to examine the claims for protection of industries making steel products which do not come within the scope of the present Act and to report whether, having regard to the principles laid down in paragraph 97 of the Report of the Indian Fiscal Commission, such claims should be admitted.

2. Firms and persons interested in the Steel Industry or industries dependent on the use of steel, who desire that their views should be considered by the Tariff Board, should address their representations to the Secretary to the Board.

3. The Government of India are specially anxious that the Tariff Board's report should be submitted not later than 15th October 1926.

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 to the Secretary, Tariff Board.

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

**Press Communiqué issued by the Tariff Board on the 16th
April 1926.**

In the Resolution of the Government of India in the Commerce Department No. 260-T. (64), dated the 3rd April 1926, the attention of the Tariff Board was drawn to the fact that section 6 of the Steel Industry (Protection) Act, 1924, provides that, before the 31st March 1927, an enquiry shall be made as to the extent, if any, to which it is necessary to continue the protection of the Steel Industry and as to the duties and bounties which are necessary for the purpose of conferring such protection.

2. The Board will proceed to examine this question. Persons or firms interested in the manufacture of the articles enumerated below who desire that the protection granted by the Act should be continued after 31st March 1927, are requested to submit representations stating

- (1) the grounds on which they consider the continuance of protection necessary in respect of the articles in which they are interested;
- (2) whether they consider that the measure of protection now given should be increased or diminished;
- (3) whether any protection which may be found necessary should be given by means of protective duties or bounties.

The articles fall under the following heads:—

Rolled steel (including beams, angles, channels, plates, bars and rods, sheets black and galvanized, rails and fish-plates).

Tinplates.

Wire and Wire Nails.

Fabricated steel.

Railway wagons and underframes.

3. The general question of the fitness for protection of an industry making steel products, the claims of which to protection have already been admitted, will not be reopened. No further examination of this point will therefore be made, except to the extent to which it has been specifically reserved for further investigation by the Government of India or by the Board, *e.g.*, in the case of the Tinplate industry.

4. The scope of the present enquiry is not necessarily limited to the articles enumerated in paragraph 2 and the Board are at liberty to examine any claims which may be put forward for the protection of industries making steel products which do not come within the scope of the present Acts and to report whether, having regard to the principles laid down in paragraph 97 of the Report of

the Indian Fiscal Commission, such claims should be admitted. Any persons or firms interested in such industries who desire to claim protection for them are requested to submit to the Tariff Board a full statement of the grounds on which they do so. Their representations should, in addition to the particulars specified in paragraph 1, state clearly whether, and, if so, to what extent, the industries are considered to fulfil the conditions laid down by the Fiscal Commission in paragraph 97 of their Report.

5. All applications must be addressed to the Secretary and reach the office of the Board at No. 1, Council House Street, Calcutta, not later than the 15th May. After their receipt, the Board will, if necessary, issue questionnaires. The applications, the questionnaires and the replies thereto will then be printed and published, and the written representations of those who wish to support or oppose the continuance or grant of protection will be invited. The dates for the oral examination of witnesses who wish to be orally examined will be subsequently fixed.

**Representation from the Tata Iron and Steel Company, Limited, to
the Tariff Board, dated the 7th May 1926.**

With reference to the Government of India Resolution No. 280-T. (64), dated the 3rd April 1926, we have the honour to submit, for the consideration of the Tariff Board, our representation regarding the continuance of protection to the Steel Industry in this country. We understand from the communiqué issued by the Board that the present enquiry is not concerned with the basic principles of discriminating protection recommended by the Fiscal Commission and accepted in the case of the Steel Industry by the Government of India and the Legislature as a result of the first Report of the Tariff Board on this subject. It declared that the Steel Industry was an industry the existence of which was vital to the country for military and economic reasons, that it could not develop without protection and could ultimately stand without it, and that its development must be of great value to India. For these reasons the Board reported that the industry was one suitable for protection. As, however, its ultimate prospects must depend on the actual results of the large modern plant then under construction at Jamshedpur and in view of the uncertainty as to the future course of world prices, the Board recommended temporary protection for a short period, three years, and that the question should be re-examined after the expiry of that period.

2. Protection has now been afforded to the industry for two years and although it has been neither so extensive as the Board have from time to time recommended nor so effective as they originally contemplated, it has enabled us to complete the new plant known as the Greater Extensions at Jamshedpur. The enquiry now to be held is limited to the amount of protection if any required in the future.

3. In accordance with the general principles set forth in the first Report the question of the amount of protection required if any is one of costs and prices. We accept the method adopted by the Board in their first Report by which the cost of manufacture was determined. In order to ascertain this the Board placed a value on the capital actually engaged in the manufacture of steel or necessary for such manufacture, as they had and still have to consider the effect at which discriminating protection deliberately aims which is the creation of an industry capable of internal competition. The first element therefore in ascertaining the cost of the product is the actual capital required to manufacture it and the return which such capital will expect. Both these questions are already answered in the first Report of the Board. They found that the capital required for the manufacture of over 600,000 tons of pig iron and over 400,000 tons of finished steel was Rs. 15 crores and that the return on this necessary to give the manufacturer a fair profit was 8 per cent.

4. Unless a fair profit is assured to the manufacturer there is no prospect that capital can be attracted to the industry or that it can be developed or indeed survive and the whole object of protection is lost. Stated in another fashion, these figures represent a return or net profit after meeting depreciation and all expenses of Rs. 30 per ton and the deduction of Rs. 8 lakhs on account of the profits on pig iron reduces this figure to Rs. 26-67 per ton of finished steel. So far as we have been able to ascertain, the figure of Rs. 26-67 is approximately that which experience has shown to be necessary in other countries, where in good years a profit of £2 per ton which in bad years may drop to £1 per ton, is usually expected. Profits in excess of this have frequently been earned but they cannot drop below this if the industry is to survive.

5. The next figure ascertained by the Board in their first Report is the interest payable on working capital. This may either be provided in the original capitalisation or borrowed from time to time as may be necessary. Most companies in this and other countries work on a combination of both these methods. In good times their own reserves provide the working capital necessary. In bad ones they are compelled to borrow having no reserves. But in any case allowance for interest on the money used must be made. In the first report this figure was taken at Rs. 350 lakhs for the plant at Jam-

shedpur. At the time we were inclined to consider this as too low. Experience has, however, shown that the Board were right and we were wrong. The actual amount which is to-day used in the holding of stocks and stores and in outstandings and which represents the working capital of the Company is Rs. 345 lakhs. We therefore think the figure should stand. It amounts to Rs. 6.09 per ton of finished steel.

6. The next figure is that for management and other expenses including the Agents' commission. This figure in the First Report is taken at Rs. 2.89 per ton of finished steel.

7. Finally in the overhead charges there is the depreciation which the Board in their First Report have taken at Rs. 93.75 lakhs or Rs. 21.72 per ton of finished steel. We agree with that figure.

8. The calculations which we have summarised above were made by the Board after a full and detailed enquiry held less than two years ago and nothing has occurred in the interval which calls for any change in them. We therefore base our present statement of the need for protection upon them. It is true that in the first year subsequent to protection the Directors were unable to set aside the full sum of Rs. 93.75 lakhs for depreciation calculated by the Board. The sum actually set aside for depreciation for 1924-25 was Rs. 60 lakhs and it is improbable that in the year 1925-26 also the full amount can be provided. This, however, appears to have been contemplated by the Board in paragraph 95 of their report in which they say that no allowance is made for the heavier incidence of the overhead charges during the period when production is comparatively low. In the circumstances no alteration in the original estimate of the overhead charges is required and in estimating the present and future costs of the production of steel in India these figures should remain unchanged. The total incidence per ton on finished steel is, as shown in the statement on page 47 of the Board's First Report, Rs. 57.37.

9. The next question for consideration is the Works cost. At the request of the Board, during their first enquiry, we gave them an estimate of the works costs expected when full production was obtained with coal at the same cost as in 1921-22, *viz.*, Rs. 8 per ton *f.o.r.* works for coking and steam coal. We give below a statement showing the actual costs for the month of March 1926 which has been prepared on the same basis, as compared with our original estimate.

	WORKS COSTS PER TON.	
	As estimated in 1923 after full production with coking and steam coal at Rs. 8 per ton <i>f.o.r.</i> works.	Actual cost for March 1926 with coal at the same price.
	Rs.	Rs.
Pig iron	30.95	26.78
Steel ingots	58.50	54.00
Rails	95.54	92.42
Bars	112.75	106.60
Average new rails and bars	96.30	91.45
" old " " "	106.50	111.06
" of old and new mills	99.00	97.34
Sheets, galvanised, black, plates and sheet bars	124.94	139.13
Average for all finished steel including sheets, plates and sheet bars.	106.46	107.61

It will be seen that in most cases and more especially in the case of rails we have done better than our original estimate. In this respect we have given proof of the advantages that may ultimately be secured by protection. It is this constant reduction in costs and ultimately in price that is constantly to be aimed at.

10. We have attached full statements of our actual costs for the years subsequent to the year dealt with in the first report of the Board and when the actual results are compared with our original estimates and with the conclusions formed on these by the Board, we do not think we can be accused of having been unduly sanguine as to results. The Board in their original estimate, assumed that our production of finished steel would be as shown in column 1 of the statement below. Column 2 shows the actual production obtained and expected for the present year:—

	Board's estimate. Tons.	Actual. Tons.
1924-25	250,000	247,982
1925-26	335,000	319,957
1926-27	400,000	360,000 (expected).

It is true that we have fallen short in the second and third years. But in the even more important matter of costs we have outstripped all the Board's calculations. In their report they say it will not be until the fourth year that costs will approach their final level. It is now only three years since the Board commenced their enquiry and exactly two years since the first report was issued. But we have already, within that period of two years, reduced our costs below the figure of Rs. 100 a ton for all finished steel excluding sheets which the Board expected during the fourth year. We have excluded sheets from the calculation because for various reasons full production has not yet been obtained in the sheet mill. That result alone will prove that the steel industry has justified the protection which it has obtained in the past and which it proposes for the future. Our costs for next year will be reduced still further and although we expect some rise in the price of coal we are content that the Board's original estimate obtained two years earlier than they expected, viz., a works cost of Rs. 100 per ton for all finished steel including sheets should be taken as the future Works costs of the plant as it stands.

11. In their original report the Board fixed the fair selling price for the three years during which protection was granted at Rs. 180 per ton and in paragraph 95 of their report they have estimated that in 1924-25 on their recommendations this Company would earn a surplus over Works costs of Rs. 125 lakhs on the sale of steel provided the Works cost of all steel did not exceed Rs. 130 per ton.

Further the Board have estimated in paragraph 95 of their original report that when the full production of 420,000 tons was obtained provided the Works cost did not exceed Rs. 123 per ton, the full margin over the Works cost would be Rs. 129 lakhs for overhead charges plus Rs. 112 lakhs for profit. The actual results have not reached the expectations although our costs have been reduced far below the figures taken by the Board. The Board's final examination of the question is contained in the very important Annexure A attached to their report dated the 2nd September 1925. In this note the cost of production of steel and the manufacturer's profit under protection have been worked out in detail. Stated briefly the result is that the Board estimated that in the first three years of protection the Industry would realise Rs. 200 lakhs net profit taking depreciation at Rs. 93.75 lakhs per annum. From this figure has to be deducted Rs. 30 lakhs which the Government of India deducted from the Bounties proposed by the Board. This leaves a figure of Rs. 170 lakhs.

12. We are now in a position to compare this estimate with the actual results for two years and can forecast very accurately the results expected for the third year. For the first year the surplus as is shown in the note by the Board to which we have referred was Rs. 4 lakhs. For the year 1925-26

the gross profit of the Company, including all profits from the sale of pig iron, will be about Rs. 150 lakhs. Deducting the figure of Rs. 120 lakhs which the Board have taken as a fair figure on account of agency and head office expenses, interest on working capital, and depreciation the actual final surplus for 1925-26 will be Rs. 30 lakhs as against the Board's estimate of Rs. 70 lakhs. The figures for the year 1926-27 can already be estimated with fair certainty. Although production will increase and costs will be reduced, these advantages are more than offset by two factors. The prices of steel are falling continuously and to-day the average realizable price is approximately Rs. 130 as shown in the Sales Statements which we are submitting to the Tariff Board. At the same time the effect of competition in respect of rails at much lower prices than are obtained in England has deprived the industry of the protection intended by the rail bounties. The point is dealt with in paragraph 116 of the Board's First Report, where it is stated that save in so far as the Indian manufacturer is bound by long term contracts, the effect of their proposals would be to give him Rs. 187 a ton for rails in the first year, Rs. 181 in the second year and Rs. 175 in the third year. The contract with all Railways except those under the direct management of the Railway Board expired in March 1926. Owing to the competition from England, the industry has been compelled to accept a price of Rs. 105 per ton for rails f.o.r. Works in all cases where the supply of rails is not governed by contracts. The result is to give the Indian Manufacturer Rs. 125 for rails as compared with the latest price estimated by the Board of Rs. 148.50 in Table V, Annexure A to the Report dated 2nd September 1925. Further, and this is a still more important point, it is now practically certain that three of the principal Indian Railways, namely the Burma Railways, South Indian Railway and the Madras and Southern Mahratta Railway whose total demands may be estimated at forty thousand tons of rails, will not accept Indian rails even at this price. In the case of the Burma Railways this Company has actually tendered at Rs. 100 per ton and the tender has not been accepted. Therefore, in these cases the industry will lose the advantage of the bounty of Rs. 20 per ton on rails, which, on a total tonnage of 40,000 tons, represents 8 lakhs.

Taking all these factors into consideration, we do not estimate our total surplus over works costs for 1926-27 at more than Rs. 160 lakhs.

Deducting as above the figure of Rs. 120 lakhs from this the final surplus or net profit will be Rs. 40 lakhs as against 126 lakhs estimated by the Board. And the total figure for the three years will be Rs. 74 lakhs as against the figure of Rs. 200 lakhs estimated by the Board and subsequently reduced by the Government of India to Rs. 170 lakhs.

13. Both the Board and the Government of India must have had these figures in mind and must have based the scheme of protection accepted by the country upon them. The fall in prices resulting from the disorganization of the continental exchanges has prevented these results being achieved. The conclusions arrived at by the Board in the Annexure A referred to above were published some six months ago and there has been no failure on the part of the industry which deprives it of approximately one crore of the total protection intended during these three years by the Government of India and the Legislature. Our costs are well under the estimates framed by the Board. Our production is equal to that estimated by us in September 1925 when these most recent estimates were prepared and accepted by the Board. The important figures in Annexure A are the Tables 3, 4, 5, and 6 on which the Board's estimates were based. We have brought these tables up to date in accordance with our actual production and the actual costs and selling prices up to the end of 1925-26 and our detailed estimates for 1926-27 and attach copies. Wherever the figures depend on the efforts made by the industry they have been bettered but the prices are steadily worse. The net result is as we have said that the Tariff Board's most recent estimate of the net margin resulting from protection during the first three years is out by 130 lakhs out of 200 and the Government of India's by nearly 100 lakhs out of 170.

14. In making this point we do not desire to make any criticism or any claim on account of the failure of the protection originally intended both.

by Government and the Board. But it is clear from these figures that the assistance given to it is in fact not so great as is commonly supposed or as was originally intended and determined by the Legislature. We have done more than was expected of us but we have not received even one half of the net return which it was decided after repeated enquiry to give us. We trust that in the future scheme of protection any chance of such an error will be eliminated. And here we desire to make two important points. Firstly protection of this nature will not encourage other investors to embark upon the manufacture of steel. We cannot emphasise the point more strongly than by quoting an actual passage from the report of the Board, dated 8th November 1924.

“It will be impossible to obtain capital for the industry, whether to keep the existing works going or to erect new ones, unless it is made clear that the policy which Government and the Legislature have adopted will be effectively carried out. The price which the Indian manufacturer may reasonably expect was determined after a very thorough enquiry, and we believe that the increased duties now proposed are no more than sufficient for this purpose. Even if it turns out that we are wrong, the situation is not beyond remedy. We think that the Company should submit to the Government of India monthly returns of the prices actually realized from the sale of steel, and the course of events will then be under constant observation. If it appeared likely that the Company would, on the average of the three years, obtain a price much higher than Rs. 175 or Rs. 180 per ton, it is always open to the Government of India to bring down the duties to a lower level. The imperative necessity of the moment is that the intention of the Government of India to make protection effective should be made clear. Inadequate protection is worse than useless.”

Secondly although the industry has been protected for two years it has earned practically no net profit on the Capital invested in it. During the two years 1924-25 and 1925-26 the industry made the following payments:—

	1924-25.	1925-26.
	Rs.	Rs.
1. Net railway freight paid for incoming materials for operation.	47,91,232 14 0	48,23,812 12 0
2. Net railway freight paid for incoming materials for greater extensions.	17,070 13 0	.....
3. Net railway freight paid for outgoing materials.	14,64,991 4 0	24,00,971 1 0
4. Income-tax paid from the salaries of employees at Jamshedpur and Bombay.	1,77,969 13 10	2,41,278 1 11
5. Expenditure at Jamshedpur and Bombay on stamps.	20,408 12 11	10,905 10 11
6. Expenditure at Jamshedpur and Bombay on telegrams.	23,798 11 0	16,954 15 11
7. Customs duty paid for Operation Department.	2,23,430 3 0	2,87,370 0 0
8. Customs duty paid for Greater Extensions.	1,659 1 3	.....

	1924-25.	1925-26.
	Rs.	Rs.
9. License fees paid for country liquor .	34,956 7 1	34,041 0 0
10. Cost price and duty paid for country liquor.	2,68,272 0 10	2,57,028 12 0
11. Amount paid to Port Commissioners .	3,11,824 4 3	2,72,160 10 0
12. Wages paid to labour	1,26,40,454 0 0	1,46,98,347 0 0
13. Interest on loans, etc	52,71,828 1 11	46,42,860 8 8
14. Dividends paid to share holders .	.....	4,50,000 0 0
TOTAL .	2,52,48,096 7 1	2,81,40,730 8 5

It is clear from these figures that there has been practically no net return to the capitalist or investor. As we have said, we do not desire to complain of the past but we do desire that in the future the protection given should be adequate:—

15. We now turn to the future. One condition laid down by the Fiscal Commission in their Report which must be satisfied before a scheme for protection can be entertained is that the industry must be one which will eventually be able to face world competition without protection. They have subsequently qualified this by confirming without hesitation the principle that any industry which is essential for national defence and for which the conditions in India are not unfavourable should if necessary be adequately protected irrespective of this condition, and both the Fiscal Commission and the Tariff Board have stated that the steel industry is such an industry. We are now able to lay before the Board a definite programme which has been accepted by our Board of Directors, provided the money required is earned, which will ensure the complete development of the steel industry in this country up to a point when it can do without the assistance from the State which it has obtained during the past two years. The method by which this can be done has already been foreshadowed in the various reports of the Board. In their first Report (paragraphs 89 and 90) they have stressed the urgent importance of the examination of the question of fuel economy in the Works. We have examined this question very carefully in the past two years and are satisfied that if our programme of development is carried out we can reduce the total coal consumption to a fraction over 3 tons per ton of finished steel. This is provided for in the development programme to which we refer.

16. A further important development is outlined in paragraph 36 of the Report of the Board, dated the 2nd September 1925, namely the construction of an additional Steel Furnace which would enable us to make greater use of the large modern rolling mills which have been erected and to close the old inefficient mills. It is on these lines that our development programme has been prepared. The further rounding up of the plant will commence from 1926-27 and will eventually be completed in 1933-34. The main items of new construction are as follows:—

(1) Fuel economy.

- (a) One new battery of Wilputte Coke Ovens similar to those already existing will be erected. The old Coppee non-recovery Ovens which we already have, will be replaced by the type of modern by-product Ovens which have proved so satisfactory by actual experi-

ence. This will enable us to operate five Blast Furnaces with the minimum consumption of coking coal. We may state, for the information of the Board, that our results on the two large furnaces recently erected are already in advance of results obtained upon similar furnaces in America.

- (b) Modern plant and improvements to existing plant designed to economise the use of fuel on Blast Furnaces and on the Open Hearth Steel Furnaces, and Boilers. We are at present investigating the Silica Gel process for the Blast Furnaces. The Open Hearth plant will be equipped with mechanical gas producers of the same type as those which have proved so successful on the Duplex Plant. The saving here would be immediate and certain. These measures will lead to a great reduction in the consumption of coal.

(2) Increase of the steel capacity :

The proposals here are for the erection of a third Duplex Tilting Furnace of the same type as the two already erected, and also for the conversion of the four old Open Hearth Furnaces to 90 ton furnaces thereby increasing the output of steel from the Open Hearth. The proposal would increase the total production of ingots from 504,000 tons estimated in 1926-27 at a cost of Rs. 53 per ton to 780,000 tons of ingots in 1933-34 at a cost of Rs. 50 per ton assuming an increase of Rs. 2 per ton in the price of coal. Apart from the reduction of works cost, the effect of the increased production on the over-head charges is obvious.

- (3) (a) The complete equipment of the new 28" mill in order to enable us to close the old mills.

This entails the construction of an additional roughing mill and the equipment of the existing new mill with a finishing department for structural material.

- (b) The erection of a hoop and strip mill to enable us to roll strip which is a very essential requirement of the agricultural products of India. This will also enable us to supply all the lighter sections including those required by all manufacturers of drawn-steel wire.

(4) The power plant cranes and tracks necessary to supply the additional power and handling facilities which the larger production will require.

We have worked out a detailed programme showing the developments that will be proceeded with year by year and their cost but, stated briefly, we estimate the expenditure on this account to be as follows :—

	Lakhs.
1926-27	15-00
1927-28	60-45
1928-29	56-50
1929-30	54-50
1930-31	54-50
1931-32	27-00

The additional construction will be completed by 1932, but the total maximum production will not be obtained for two years subsequent to that date. The total expenditure will be Rs. 268 lakhs and it is proposed to find this sum from the depreciation reserves of the Company during these years.

17. The depreciation reserve as fixed by the Tariff Board in their first Report, will be Rs. 93-75 lakhs per annum and will more than suffice to meet the expenditure proposed nor could the money be used in any better way by the Company. The balance will suffice to maintain the existing plant efficiently. We attach, for the information of the Board, a detailed statement showing the increase in tonnage expected in pig iron, steel ingots and all finished products shown separately from the year 1926-27 to the year 1933-34 if this development programme is carried out and the reduction in works costs. It

will be seen that the total tonnage of pig iron will increase during this period from 600,000 to 800,000 tons and the cost will be reduced from Rs. 27 to Rs. 24 per ton. The old 28" mill will eventually be closed. The tonnage on the new 28" mill will rise from 144,000 tons at a cost of Rs. 85 per ton to 260,000 tons at a cost of Rs. 75 per ton. The total tonnage of sheets will rise from 18,000 tons at a cost of Rs. 275 per ton for Galvanised Sheets to 55,000 tons at a cost of Rs. 225 per ton and the tonnage of total finished steel from 360,000 to 560,000 tons. In making the calculation we have assumed that the price of coal which is at present Rs. 5 per ton f.o.r. colliery for 1926-27 will rise to Rs. 6 per ton 1927-28 and to Rs. 7 in 1928-29 and will remain at or about that figure.

18. With regard to these estimates we can be fairly confident as they are based on actual experience of the complete Greater Extensions Plant extending over a period of two years. It is not possible to be so confident with regard to the future scale of prices that may be expected in India. The present selling prices are as follows. The table is prepared in the same form as that given in paragraph 16 on page 12 of the Report of the Tariff Board on Supplemental protection dated 2nd September 1925:—

	Price likely to be realised as estimated by Tariff Board.	Price realised April 1926.	Standard prices.	Difference of columns 2 and 3.
	1	2	3	4
	Rs. Per ton.	Rs. Per ton.	Rs. Per ton.	
Bars	145	135	180	45
Heavy structural sections (mainly beams and channels.)	145	135	175	40
Light structural sections (mainly angles and tees.)	141	141	175	34
Plates	146	135	180	45
Black sheet	187	165	230	65
Galvanised sheet	297	285	345	60
Rails (on the basis of English or Continental prices).	{ 140 Br. 124 Con. Average 132	105	155*	50
TOTAL	145.41	127.89	174.75	46.86

* This price would be increased by the bounty on rails to Rs. 175 in 1926-27.

It will be noted that prices have fallen again considerably from the prices which the Board in September last estimated would probably be realised up to the 31st March 1927 and it is impossible to say whether they have now reached their lowest level. American prices are considerably higher. The above selling prices include defective materials; credit for scrap is taken in the Works cost.

19. The price of steel in India must of course depend on the factor of exchange, and it is impossible for us to forecast the future tendency of this. It is, however, sufficiently plain that prices cannot in the very nature of things fall much further and we think that over a period of ten years it may be fairly assumed that the average prices will at least remain somewhere about the point which they have now reached. In fact prices are at present practically at pre-war level and we believe that this applies to no commodity except steel. We do not see how any substantial drop is possible.

20. The amount found by the Board to be necessary in order to provide a fair return upon the capital invested in the Industry as shown in paragraph 95 of their First Report was Rs. 129 lakhs plus Rs. 112 lakhs, or Rs. 241 lakhs. We think we may fairly assume that within a period of ten years exchange and conditions will at least be so stabilized that we may expect to obtain in India the average prices obtainable in England or America for steel of similar quality plus the cost of exporting such steel to India. It will of course be necessary to provide, as in the case of Australia, anti-dumping legislation to prevent the unfair competition to which the industry in India has been subjected in the past three years, but we do not think it can be contended that India would be paying an unfairly high price for steel if the prices are assumed on this basis. The average price for English rails during the past year for sale in England has been £8 per ton. The pre-war price was £6 per ton, but even at £7 per ton at current exchange, 1s. 5¹¹/₁₆d. the cost of rails landed in India with a revenue duty of 10 per cent. would not be less than Rs. 120-10. We have in our calculations assumed a price of Rs. 125 for rails and have assumed other prices in proportion. The statement below shows that with these prices and the production and the Works cost that we anticipate, the margin to the industry in 1933-34 without any further protection than the ordinary revenue duty and the geographical protection arising from its position would be Rs. 2,30,60,000 annually and, in our opinion, if the industry reaches such a condition, and we are confident that it can reach it, further protection will then be unnecessary.

	Estimated yearly prod. for sale.	Estimated selling price	Estimated works cost.	Estimated margin.	Estimated yearly margin over works costs.
	Tons.	Rs.	Rs.	Rs.	Rs.
Rails	200,000	125	75	50	1,00,00,000
Merchant mill bars	120,000	125	65	40	48,00,000
Old bar	25,000	125	105	20	5,00,000
Heavy structural	60,000	125	75	50	30,00,000
Sheets	55,000	...	...	...	...
Corrug. 45,000 . . . . .	...	260	225	35	15,75,000
Black 10,000 . . . . .	...	140	140	...	...
Tin bar	50,000	63	65	18	9,00,000
Plates	15,000	125	95	30	7,50,000
Sleepers	25,000	125	90	35	8,75,000
TOTAL	5 0,000	132 57	92 57	40	2,24,00,000
Pig iron	60,000	40	24	16	9,60,000
Estimated yearly margin					2,33,60,000
Less town					3,00,000
Total					2,30,60,000

It should be particularly noted that the development programme which we have outlined involves no increase in capital and therefore no addition to the overhead charges. The results which we anticipate can be obtained provided adequate protection is accorded to the industry during the period of development and protection in the shape of anti-dumping legislation is afforded to it.

21. We lay great stress on the necessity for anti-dumping legislation and we give one specific instance which has occurred this year and to which we have already referred. As has already been found by the Board the Steel Company, at great loss to itself, supplied rails to the Indian Railways not under direct Government management and they made large profits owing to their long term contracts with the Steel Company. No sooner had these contracts expired than several of the Railways in question have taken advantage of the low price of rails offered from England. To this we can have no objection, but owing to the peculiar export conditions of the trade in a country where a large surplus over the country's needs is manufactured, the price of English rails offered to India has we believe been much below the price at which the rails have been sold by English manufacturers to English Railways. We have therefore the somewhat peculiar condition that whereas English Railways have definitely announced their policy of refusing to accept any rails other than those manufactured in England for the use of English lines, some of the largest Indian Railways have refused to use rails manufactured in India as English makers are offering them rails at a lower price than the price obtained by them from their own Railways. It is extremely difficult to give exact figures regarding transactions of this nature, but we understand that the price at which rails have been purchased by the Burma Railways who had refused the offer of Rs. 100 per ton f.o.r. works from the Steel Company, is £6-5 f.o.b. English Port. As we have stated, the average price for rails quoted in England during the past year has been in the neighbourhood of £8 and we believe rails have recently been supplied to the English Railways at about £7-5. We had ourselves offered to supply all the requirements of the Indian Railways at the average price paid by the English Railways during the same year *plus* the freight, duty and landing charges. That offer was refused. It will be easy for the Tariff Board to ascertain what the actual facts are, but if they are as we have stated, it would be difficult to conceive a clearer case of dumping. In paragraph 139 of the report of the Fiscal Commission special legislation for this purpose was suggested, but up to the present no action has been taken by the Government of India. Some such provision in the future, in view of this instance, is, eminently desirable. In the present case the result has been that the Steel Company have lost the bounty of Rs. 20 per ton granted on the manufacture of rails, on some 40,000 tons, and has therefore lost the protection which was intended to be afforded to it to the extent of some Rs. 8 lakhs and has suffered this loss as a direct result of the dumping complained of. Other aspects of these rail orders are dealt with in the note attached to this representation.

22. We have stated that, by 1933-34, if adequate protection is afforded to the Steel Industry in India in the interval, it will be able to stand without special protection. It remains to consider the protection required during that interval. As we have already stated, there is no reason to reduce the estimate of the overhead charges, already arrived at by the Board. This amount, as stated in paragraph 82 of the First Report, represents Rs. 57 per ton of finished steel. This will of course be reduced automatically as production increases. We attach a statement giving an estimate from 1927-28 to 1933-34 of the total production of each of the principal classes of products and the Works costs in each case year by year with the Works costs of all finished steel including sheets. It will be seen that the Works costs of all steel in the year 1927-28 will be Rs. 103.76 per ton with coal dearer by Re. 1 per ton than the present prices and that this will gradually be reduced to Rs. 92.37 per ton in 1933-34. The reduction would be greater, but in our estimate we have allowed for some further increase from the present low price of coal and have estimated that this will rise from Rs. 5 in the present year to Rs. 6 in 1927-28, Rs. 7 in 1928-29 and will remain at about that figure.

23. With a total overhead charge, including the return on capital investment, of Rs. 57 per ton of finished steel on 420,000 tons, the total price which we should obtain according to the calculations in the First Report during these years would be as shown below for finished steel including sheets.

	Production.	Overhead charges.	Works cost.	Selling price.
	Tons.	Rs.	Rs.	Rs.
1927-28	390,000	57.37	103.76	161.13
1928-29	435,000	55.40	101.71	157.11
1929-30	460,000	52.39	101.11	153.50
1930-31	500,000	48.20	99.14	147.34
1931-32	530,000	46.34	97.90	144.24
1933-33	540,000	44.63	93.77	138.40
1933-34	560,000	43.03	92.37	135.40

24. If the scheme of protection is to be made successful it must be applied for a much longer period than in the past. The present scheme received the assent of the Governor General on the 19th June 1924. Since that date there have been two separate enquiries as to the protection required to supplement the original scheme. It is at least doubtful whether the trade and industry of the country have not suffered more from these perpetually recurring enquiries with the consequent reaction on imports and prices than it would have, had the original scheme of protection been so generous as to ensure an adequate margin of safety. The protection of industry is intended to create not to preserve and no protection that aims at maintaining a bare level of existence of the industry to which it is applied and is continually jealous of any excess margin of profit can possibly succeed. The aim of protection is, as stated by the Fiscal Commission to build up a strong and healthy industry which can eventually stand without protection of any sort. Such industries have not been built up in the past by other countries by such methods as have been employed in India during the past two years. In America the duties originally imposed were in their nature prohibitive and amounted in some cases to as much as 100 per cent. A measure of such determined scope and application is far more likely to prove to the ultimate advantage of the country than assistance which is hedged round by perpetually recurring enquiries owing to the inadequate estimates originally framed. As we have said, we make this statement in no spirit of criticism as to the assistance given to this particular Company. Without such assistance it could not have continued, but in the general interests of industry and the country we feel bound to point out that assistance of this kind is likely to be much more expensive to the country in the long run. If adequate protection is afforded to the Steel industry for a sufficiently long period and reasonable profits are earned by the capital invested in it, the conditions in India are such that several plants of the size of our own would probably be started, and the internal competition resulting would reduce the cost of steel and the price to the consumer far more rapidly and more efficiently than if one Company only is kept alive in a condition which does not enable it to pay more than one per cent. on the capital invested in it. Its experience is not likely to encourage other manufacturers to enter the field and in the result the country is deprived of the internal competition which should ultimately correct the necessity of protection and develop the industry into a source of great material wealth. The real question for the country is not what is the lowest price at which it can purchase any given

material at a particular time but what is in the long run the most economical price at which it can secure for all time the supply of material essential to its security, prosperity and national growth, such as steel. It is true that India at present purchases steel at a very low price and recently owing to the fall in French and Belgian exchange steel has been imported into India at prices actually below pre-war prices, but there is no certainty that this demoralised price will continue. Ultimately as in the case of all other commodities, steel cannot be sold except at a price that ensures a fair return on the labour and capital invested in its manufacture. That is not to-day represented in the price at which steel is coming into this country. It must, however, ultimately be represented in such prices and it is a question for India whether it would prefer to pay this price for ever to foreign countries or to retain the money and this great source of national wealth within its own borders. The various combinations between American, English and Continental Makers of Steel reported from Europe would not if effective lower prices to this country once the home industry is out of the way.

25. The average price of English rails has, as we have shown, been in the neighbourhood of £8 for this year. The average price of American rails during the same period has been \$43. England has been making steel for nearly 100 years, America has been making steel for over 60 years and her total production of steel exceeds the entire production of the rest of the world to-day and is attaining a record growth. India has been making steel for some 12 years during which the manufacture has been interrupted and disorganised by four years of War. Yet India is to-day paying a price of £6-5-0 for rails as compared with the English and American prices. If a similar price were enforced upon America and England there is very little doubt that the Steel Industry of both the countries would collapse. But they would not allow such a price to be enforced.

26. The first and one of the most important questions therefore to be decided in connection with the new scheme of protection is the period to be covered by it. This should not be less than ten years at the least. So far as we ourselves are concerned, our development programme will be completed within seven years but we do not expect to reap the full benefit from it within at least ten years. We have in the past been accused of being unduly sanguine. We do not wish to repeat that mistake and allowing for a reasonable margin of error we consider that the industry should be able to stand without protection in ten years but in no less period. The period is all too short for the establishment of other works by other Companies but there are already blast furnace plants in existence which could be extended and could attain full production within that period. In support of our view as to the period we may refer to the representation of the Indian Iron and Steel Company, Limited, printed on page 177 of the Evidence recorded during September 1925.

27. It is not possible to devise any sliding scale of protection that could be subject to periodic automatic alteration. It would be much more satisfactory to set now the standard of protection that will be adhered to for a reasonable period and to leave private enterprise and competition to level the results if these are unfavourable to the consumer and too favourable to the industry. The experience of the past two years shows that a mistake in the latter direction is hardly probable and even if one does occur, this could be corrected by special taxation as has been pointed out by the Board. On the scale of protection we suggest there is no reason whatever to anticipate extravagant profits to the pioneers who have made this industry possible in this country. We know that the intention of Government has been to secure a reasonable return to this industry and that it is due to no fault in the machinery devised that these expectations have not been realized. It is the pressure of world-wide conditions that has caused the protection originally devised to be less effective than was intended. We would here quote paragraph 69 of the Indian Fiscal Commission's Report which really states the case better than we can state it:—

“It is not our intention to suggest that the burden on the consumer arising from protective duties is necessarily permanent. On the

contrary, if the industries to be protected are selected with due discrimination, the burden should gradually diminish and eventually cease altogether. But the process of diminution is not likely to be rapid or to commence immediately. So long as foreign imports continue to enter in appreciable quantities, the price of the goods must in general be regulated by the price of the foreign imports, that is to say, the consumer will be paying the full foreign price *plus* the import duty. As the home industry develops in efficiency and reduces its cost of production, there will be at first no reduction in prices, but the decrease in the cost of production will merely go to swell the profits of the home industry. This will lead to the more rapid development of the home industry and will hasten the time when it is able to supply the home market almost in full. As foreign imports dwindle to small proportions, prices will become regulated more and more by internal competition and the consumer will then begin to derive the benefit from the increased efficiency of the local industry and may in the end obtain the goods as cheaply as if he were free to import them without a duty. If the industry is one for which the country possesses marked natural advantages, he may even obtain them more cheaply."

We are already making pig iron much cheaper than the rest of the world and we have no doubt whatever that, if our proposals are accepted, we shall within the period stated be making steel much more cheaply than the rest of the world.

One thing should by all possible means be avoided and that is the repeated enquiries and alterations that have been necessary during the period of probation. Whether ten years or some longer or shorter period is accepted as the period of the protection now proposed does not however greatly affect our arguments. Supposing that ten years is accepted we have at the commencement of this period in 1927-28 a works cost for all steel of Rs. 103.76 and at the end of it in 1936-37 a works cost of Rs. 92.37. A works cost of Rs. 103.76 with a production of less than 420,000 tons requires a selling price of Rs. 161.13. A works cost of Rs. 92.37 with a production of 560,000 tons requires a selling price of Rs. 135.40. It is somewhere between the two that the amount of protection must be fixed. We think that the protection necessary should be given in the form of additional duties. This was the intention of the original Act.

28. We have said that the amount of protection must lie somewhere between the two but we think that it should be nearer the higher limit than the lower if protection is to achieve its main object because, unless that is done, there is little prospect of other Companies entering the field, and also because the present costs will not be substantially reduced until 1932-33 at the earliest. If a reasonable profit is to be earned, the fair selling price of steel cannot be reduced below Rs. 155 during this period. In five years from 1927-28 the average annual margin to this Company will be as follows:—

Total production.	Average cost.	Selling price.	Margin.	Total Rupees.
Tons.	Rs.	Rs.	Rs.	Lakhs.
461,000	100	155	55	253

29. The Tariff Board's own figure which gives the industry 8 per cent. on capital is Rs. 241 lakhs a year. Our proposal is not unduly generous if steel is to be developed by protection in this country nor is this an unreasonable margin of safety to begin with considering the experience of the past two years. We are sure that any lower figure would not attract fresh capital. If the results of the first 5 years are unduly favourable to the industry special taxation can then be imposed or the selling prices may be reduced otherwise.

30. In order to maintain an average selling price of Rs. 155 per ton it would be necessary to obtain the following prices for the principal products. We base the calculation on the quantity of finished steel we expect to produce in 1927-28, and the costs.

	Tonnage.	Cost	Selling price.	Margin.	Total lakhs.
Heavy structural	36,000	110	160	50	18'00
Rails	150,000	85	140	55	82'50
Plates	20,000	110	160	50	10'00
Bars	75,000	95	160	65	48'75
Light structural	24,000	115	165	50	12'00
Black Sheets	6,000	175	225	50	3'00
Corrugated sheets	24,000	275	325	50	12'00
Sheet bar	50,000	70	80	10	5'00
Sleepers	5,000	105	140	35	1'75
TOTAL	390,000	103'76	153'26	49'50	193'09
Pig iron profits . . . . .	...	...	...	...	12'00
GRAND TOTAL . . . . .	...	...	...	...	205'00

31. This is still Rs. 36 lakhs below the estimate of the necessary margin made by the Board. But we suggest that the difference should be made up by a bounty on rails and sleepers of Rs. 20 per ton to be granted until the required estimate is attained either by our constantly decreasing cost or by a rise in price. The additional duties which we have recommended should more than provide the revenue required to meet this. The additional duties which we now suggest on rails will prevent in the future the dumping which has occurred this year and will ensure that we should reap the full benefit of any bounty.

32. The additional duties to those now existing necessary to provide the selling prices which we have suggested will be as follows:—

	Present landed Price.	Proposed Price.	Additional Duty.
	Rs.	Rs.	Rs.
Heavy rails	100	140	40 per ton.
Heavy structural	135	160	25 "
Plates	135	160	25 "
Bars	135	160	25 "
Light structural	141	165	24 "
Black sheets	165	225	60 "
Corrugated	285	325	40 "
Tin bar	83	80	(comes under bars).
Sleepers	100	140	40 per ton.
Light rails	115	160	45 "

33. We may point out that the additional duties which we now propose are practically those originally recommended by the Tariff Board in their first report on supplementary protection. The proposals then made were as follows:—

	Additional Duty. Rs. per ton.
Bars	35
Structural	35
Plates	25
Black Sheet	22
Galvanised	33

34. We have proposed heavier duties on sheets but the actual increase to this Company is small. The duty on rails is suggested to meet the abnormal circumstances that have so affected our market for this material. Our costs have dropped in the interval since the Board's proposals were made, but prices have dropped still further.

35. We may now summarise our proposals.

- (1) We claim that protection is still necessary if the industry in this country is to develop or indeed to survive. The industry has had the benefit of protection for two years and nine months. We have shown that even the assistance afforded to it during that period has fallen short by about Rs. one crore of the aid intended by Government and that there has been practically no return to the capital invested on the manufacture of steel. We represent that inadequate protection for this period only to an industry which required over thirty years for its development in America, in Germany and in Japan would be both useless and expensive to the country. We are confident that the industry can be firmly established within ten years and we claim that the protection now to be granted should be for no shorter period in the interests of the country itself. Nothing is more disturbing to trade, to commerce and to industry than repeated alterations in the Tariff.
- (2) We ask that anti-dumping legislation should now be introduced at the earliest possible date on the lines suggested by the Fiscal Commission. We have shown the result of such dumping from England in the matter of rails and the effect it has had on the protection devised by Government and approved by the Assembly.
- (3) We suggest that the protection now afforded should take the shape of additional specific import duties on various classes of steel. We attach for the information of the Board a complete copy of the Tariff Schedule* as we would revise it. The effect will be to give the Indian manufacturer an average price for finished steel of Rs. 155 as compared with Rs. 180 originally contemplated. That drop in costs has been achieved by the industry in two years. It represents a saving on the amount necessary of Rs. 120 lakhs annually.

As we have said, the average price of rails in England in the past year has been about £8. The average price of rails in the United States of America is to-day about 43 Dollars. These prices, taking exchange at 1s. 6d. the usual freight, and handling charges and the existing revenue duty, represent a price of about Rs. 131 in India as compared with the selling price of Rs. 155 on which we base our claim and we have shown that in seven years the industry will be able to meet this price.

* Not printed.

- (4) We ask for the continuance of the present bounty of Rs. 20 per ton on rails until such time as the industry can do without this and that pressed steel sleepers should now be protected.
- (5) We ask that the tools manufactured by the Company should now be given that protection which Government originally recommended to the Assembly.
- (6) We ask that the additional duties proposed on fabricated and other steel proposed by the Board last September should now be introduced. We have not discussed this aspect of protection in detail in this representation but it is obvious that it is useless to protect the basic industry unless the subsidiary industries are also protected.

We attach separate notes regarding our development programme, the rail orders, pressed steel sleepers, tools and rods for wire manufacture.

Enclosure No. 1.

Calculation of the surplus over Works costs actually accrued to The Tata Iron and Steel Company, Limited, from the manufacture in 1925-26 of those kinds of steel on which the additional bounty is calculated.

	Works Cost.	Price realised with additional Bounty.	Difference between 1 and 2.	Quantity.	Surplus over Works Costs.
	1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.	Rs.
Rails	102-25	195-92	93-67	2,063	1,93,241-21
Heavy structurals	113-71	169-03	55-32	23,601	13,16,971-32
Light structurals	111-82 {	125-61	54-31	88,182	47,69,164-42
Bars		105-31			
Plates	125-07	169-02	43-95	20,671	9,17,281-45
Black sheet	181-34	197-50	16-60	16,582	2,67,905-12
Galvanised sheet	315-35	311-21	-4-14	12,681	- 52,499-34
TOTAL				164,180	74,32,064-18

Enclosure No. 2.

Calculation of the surplus over Works costs likely to accrue to The Tata Iron and Steel Company, Limited, from the manufacture in 1926-27 of those kinds of steel on which additional bounty is calculated.

1926-27.	Works Cost.	Price with Bounty.	Difference between 1 and 2.	Estimated Production.	Surplus over Works Cost.
	1	2	3	4	5
	Rs.	Rs.	Rs.	Tons.	Rs.
Rails	85	142'34	57'34	57,322	32,86,843
Heavy structurals	110	147'34	37'34	36,000	13,44,240
Light structurals	115	147'34	32'34	24,000	7,76,160
Bars	95	147'34	52'34	67,200	35,17,248
Plates	110	147'34	37'34	19,800	7,39,332
Black sheet	175	182'34	7'34	6,000	44,040
Galvanised sheet	275	302'34	27'34	12,000	3,28,080
TOTAL		...	...	2,22,322*	1,00,35,943

* The failure to obtain the rail orders reduces the production of steel on which the bounty is calculated by 40,000 tons.

N.B.—In the above calculation following selling price has been taken into account.

	Rs.
Rails	125 with Rail Bounty.
Heavy structural	130
Light structural	130
Bars	130
Plates	130
Black sheets	165
Galvanized sheets	285

Enclosure No. 3.

Calculation of the surplus over Works costs likely to accrue to The Tata Iron and Steel Company, Limited, from the manufacture in 1925-26 of those kinds of steel on which the additional bounty is not calculated.

	Works Costs.	Probable Price with Bounty on Rails.	Difference between 1 and 2.	Out-put.	Surplus over Works Costs.
	1	2	3	4	5
	Rs.	Rs.	Rs.	Tons.	Rs.
Palmer railways rails	102.25	118.78	46.53	67,094	31,21,683.62
Railway board rails	102.25	156.00	53.75	46,530	25,00,967.50
Tinplate bars contract	76.21	85.56	7.35	31,500	2,31,525.00
Tinplate bars outside	76.21	121.52	43.31	8,680	3,84,592.80
Sleepers	119.64	125.00	5.16	1,773	9,146.68
TOTAL . . . . .	...	...	...	155,777	62,48,137.60

Enclosure No. 4.

Calculation of the surplus over Works costs likely to accrue to The Tata Iron and Steel Company, Limited, from the manufacture in 1926-27 of those kinds of steel on which the additional bounty is not calculated.

	Works Costs.	Probable Price with Bounty on Rails.	Difference between 1 and 2.	Estimated Out-put.	Surplus over Works Costs.
	1	2	3	4	5
	Rs.	Rs.	Rs.	Tqns.	Rs.
Railway board rails	85	150	65	86,678	56,34,670
Tinplate bars	70	83	13	51,000	6,63,000
TOTAL	...	...	...	137,678	62,97,070

Enclosure No. 5.

Calculation of the probable surplus over Works costs per ton of finished steel in 1925-26 and 1926-27.

	ESTIMATED PRODUCTION OF STEEL.			ESTIMATED SURPLUS OVER WORKS COSTS.			SURPLUS OVER WORKS COSTS PER TON OF OUT-PUT.		
	Steel on which Bounty would be calculated.	Steel outside the Bounty.	TOTAL.	Bounty Steel.	Other Steel.	TOTAL.	Bounty Steel.	Other Steel.	TOTAL.
	1	2	3	4	5	6	7	8	9
	Tons.	Tons.	Tons.	Rs. Lakhs.	Rs. Lakhs.	Rs. Lakhs.	Rs.	Rs.	Rs.
1925-26 .	164,150	155,777	319,957	74.32	62.48	136.80	45.27	40.11	42.75
1926-27 .	222,322	137,678	360,000	100.35	62.97	163.32	45.14	45.73	45.36

Enclosure No. 6.

Statement showing the estimated annual production and costs from 1926-27 to 1933-34, with price of coal f.o.r. Colliery Rs. 5 during 1926-27, Rs. 6 during 1927-28 and Rs. 7 during 1928-29 and onwards.

	1926-27.		1927-28.		1928-29.		1929-30.		1930-31.		1931-32.		1932-33.		1933-34.	
	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.
		Rs.		Rs.		Rs. A.		Rs. A.		Rs. A.		Rs. A.		Rs. A.		Rs.
Pig iron . . .	600,000	27	630,000	27	684,000	26 0	720,000	26 0	744,000	25 0	768,000	24 0	792,000	24 0	800,000	24
Open hearth . .	216,000	..	222,000	...	228,000	...	234,000	...	240,000	...	240,000	...	240,000	...	240,000	...
Duplex plant . .	258,000	...	336,000	...	384,000	...	420,000	...	450,000	...	480,000	...	510,000	...	540,000	...
Ingots Total . .	504,000	53	558,000	53	612,000	52 0	654,000	52 0	690,000	51 0	720,000	50 0	750,000	50 0	780,000	50
Old 28" mill . .	36,000	110	36,000	110	40,000	110 0	50,000	105 0	53,500	105 0	41,000	105 0	...	...	...	...
New 28" mill . .	144,000	85	150,000	85	150,000	85 0	150,000	85 0	175,000	82 8	200,000	80 0	251,000	77 8	280,000	75
Plate mill . . .	19,800	110	20,000	110	22,000	105 0	23,000	105 0	24,000	100 0	25,000	97 8	25,000	95 0	25,000	95
Merchant mill . .	67,200	95	75,000	95	108,500	90 0	116,000	89 0	120,000	88 0	120,000	87 0	120,000	86 0	120,000	85
Bar mills . . .	24,000	115	24,000	115	24,000	115 0	25,000	112 8	25,000	110 0	25,000	110 0	25,000	107 8	25,000	105
Sheet mills black	6,000	175	6,000	175	7,000	165 0	8,000	160 0	8,000	155 0	8,000	150 0	9,000	145 0	10,000	140
Galv.	12,000	275	24,000	275	26,000	265 0	28,000	260 0	32,000	250 0	36,000	240 0	40,000	230 0	45,000	225
Sheet Bar . . .	51,000	70	50,000	70	50,000	69 0	50,000	68 0	50,000	67 0	50,000	66 0	50,000	65 0	50,000	65
Steel sleepers .	...	...	5,000	105	7,500	102 8	11,000	100 0	12,500	97 8	15,000	95 0	20,000	92 8	25,000	90
Finished steel .	360,000	98'46	390,000	103'76	435,000	101'71	460,000	101'11	500,000	99'14	520,000	97'90	540,000	93'77	560,000	92'37

Enclosure No. 7.

Note on the Development Programme of The Tata Iron and Steel Company, Limited.

In October 1921 the Consulting Engineers prepared a final estimate for the completion of the Greater Extensions amounting to Rs. 19,64,00,000. This revision meant a considerable increase in the previous estimate of July 1920.

As the capital required for the complete scheme was not available, it was decided to push on to completion the essential part of the programme that would enable the Company to operate the new plant. Accordingly items amounting to over Rs. 2½ crores were dropped from the estimate and the extensions were carried out on the basis of an estimate of Rs. 17,13,00,000. This has enabled us to complete and operate the plant but there are many respects in which it can be improved. Post-war practice has shown that much greater fuel economy is possible and this is one line of development. Another is the increased use of the large modern mills by providing more steel to be rolled in them. We have been continuously considering the future development of the plant since its completion and in this year the Board have sanctioned the scheme for its final development to which we refer in our representation.

The first essential is to equip the plant at the lowest possible cost to get the maximum amount of production. The maximum production possible now is 420,000 tons of finished steel. This we propose to raise to 560,000 tons in seven years. The second essential is to get the lowest possible cost of production. The Works cost of rails is to-day Rs. 91. We propose to reduce that to Rs. 75. Attached are two statements showing (1) the items necessary to round off the plant and to get the maximum production from it at the lowest cost and (2) additions to the plant which will result in still lower costs. Most of these items are items which were cut out from the original scheme together with equipments intended to provide economy in the use of coal which have been proved successful by post-war experience in Europe and America. The additional plant will provide the maximum output of steel and bye-products possible so as to fully employ the very large modern rolling mills which we have installed thereby reducing costs to a figure that should enable us to compete with any steel in the world.

The estimates for this expenditure have been carefully checked. In most cases the expenditure suggested is not a question of new construction, the cost of which is doubtful, but of additions, alterations and improvements and economies in the existing plant and the costs and results of such improvements and additions can be estimated very accurately. A brief explanation of the main items is given below:—

“LIST A.”

Item No. 1.—The fourth battery of Wilputte Coke Ovens is required because we cannot make sufficient coke to supply the five Blast Furnaces. At present we can buy this but we must ultimately put up the additional battery of coke ovens or leave one blast furnace idle. It would be most uneconomic to use the old non-recovery oven.

Item No. 2.—The necessity of the 3rd Duplex Furnace arises from the fact that the steel capacity of our plant is not up to the capacity of the finishing mills. We have the coke and pig iron capacity and the third Duplex Furnace is required to increase the output of steel.

Items Nos. 3, 4 and 5.—The soaking pits equipment and re-heating furnace are required to take care of the additional steel to be produced from the 3rd Duplex Furnace.

Items Nos. 6 and 7.—The Roughing Mill and the Finishing Department are required on the new 28" mill in order to equip it for the rolling of structural material. We cannot at present roll structural material on this mill at all and this is a very dangerous position because if our orders for rails

fall below 120,000 tons, it would be impossible to employ this mill profitably. If it is equipped to roll structural material, we can then shut down the old and inefficient 28" mill on the old plant and use the new mill at full capacity.

Item No. 8.—The new Gas Producers on the Open Hearth.—These mechanical producers will save their cost by reducing the consumption of coal within one to two years. We are certain of this as we have been able to compare the consumption on the new mechanical producers on the Duplex Plant with the consumption of the old producers on the Open Hearth.

Item No. 9.—This is a general figure intended to cover fuel economies throughout the Works.

Item No. 10.—This item is to provide the additional power required to handle the increase in the plant.

Items Nos. 18 and 19.—Experience has shown that the motors driving the Sheet Mill and the Sheet Bar and Billet Mill are not sufficiently powerful. In order to get full production, and deal with the increased quantity of steel, additional motors are required. The expenditure also provides for four new Sheet Mills raising the total number of mills from 7 to 11.

"LIST B."

Item No. 1.—Benzol Recovery.—We have been advised strongly by our Consulting Engineers to erect this and the proposition is considered a very paying one. It is expected that the whole cost of the plant would be recovered from the profits of a very short period.

Item No. 2.—This is intended to enable the plant to manufacture its own Chrome Magnesite and Silica Bricks which would mean a very great saving in the cost of these materials.

Item No. 3.—This is for a special metallurgical laboratory and building. Every up to date modern plant has such equipment and it is peculiarly necessary in this country where many of the problems of the steel industry have to be studied afresh.

Item No. 4.—This is a provision to enable the plant to make its own rolls which would mean a very great saving in expenditure.

Item No. 5.—It is obvious that the demands of the Indian Railways for steel sleepers are increasing greatly and our existing plant is not sufficient to handle these.

Item No. 7.—This is the final item in the programme intended to bring the production of steel from the old Open Hearth to its fullest possible capacity. Four of the existing Open Hearth Furnaces are out of date and can be very greatly improved if they are enlarged to 90-ton furnaces. There would be a great reduction in cost as a result.

The other items of expenditure are refinements which would improve the plant.

The total expenditure including lists "A" and "B" will be Rs. 2,68,00,000. It is not intended to spend this at once. We wish to spend gradually and out of depreciation and after full and detailed investigations by the men working the plant with one additional consulting engineer. In this way construction will not interfere with the gradual increase of production and profit from the present plant. It has been decided that this expenditure should be spread over a period of years as shown in our representation to the Tariff Board. The sum of money required can be found from depreciation which will be taken year by year and this is the best use to which the depreciation reserve can be put and will give an immediate return to the shareholders. We have attached to our representation estimates showing the expected profit if this programme is carried through.

The scheme has been sanctioned by the Board of Directors with this proviso that the annual expenditure should go before the Directors in March of each year, so that the Board may be in a position to see whether any changes are necessary and whether the money can be provided.

Work to complete plant to obtain maximum production.

LIST "A."

Items.	Estimated cost.	Fiscal years. Expenditure in Lakhs of Rupees.					
		1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
1. Fourth Battery. Wil- putte Coke Ovens.	Rs, 25,00,000	...	5	5	10	5	...
2. Third Duplex . . .	20,00,000	...	20	...	...	...	...
3. Soaking pits Nos. 9 and 10.	6,00,000	...	6	...	...	...	...
4. Soaking Pit Charging and drawing Crane.	1,40,000	...	1.4	...	...	...	...
5. Nos. 2, 3, and 4 Re- heating Furnaces (25' Mill).	7,50,000	2.5	2.5	2.5	...	...	...
6. Roughing Mill . . .	32,00,000	...	2.5	5	15	9.5	...
7. Finishing Department (Struc.) (28' Mill).	6,50,000	...	...	...	2.5	4.0	...
8. Open Hearth Depart- ment Morgan Produ- cers.	6,00,000	...	3	3	...	...	...
9. Fuel Economy . . .	10,00,000	2	2	3	2	1	...
10. Additional Generator Set	22,50,000	...	...	10	12.5	...	...
11. E. O. T. Crane-Hot Hole.	75,000	...	.75	...	...	...	...
12. E. O. T. Crane Mer- chant Mill.	50,000	...	.51	...	...	...	...
13. Three New Calcining Kilns.	5,00,000	...	...	3.5	1.5	...	...
14. Locomotive Steam Crane.	80,000	...	.80	...	...	...	...
15. Two Locomotives . .	2,00,000	...	...	2	...	...	...
16. Broad Gauge Wagons (200).	10,00,000	5	2.5	2.5	...	...	...
17. Electric Repairs Shop.	1,00,000	.5	.5	...	...	...	...
18. New Mills & Motor for Sheet Mill.	8,50,000	...	...	8.5	...	...	...
19. 24' Sheet Bar and Billet Mill Motor.	1,75,000	...	1.75	...	...	...	...
20. Locomotive Shed in- cluding bunkering arrangements for both coal & water.	2,50,000	...	1.25	1.25	...	...	...

LIST "A"—continued.

Items.	Estimated cost.	Fiscal years. Expenditure in Lakhs of Rupees.					
		1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Rs.						
21. 250-Ton Mixer at Duplex Plant.	1,00,000	...	1·00	...	...	...	...
22. Road Transport, Haulage, etc.	1,00,000	·25	·25	·25	·25	...	...
23. Weighbridges	1,00,000	·25	·25	·25	·25	...	...
24. Track System including double track up to B. Furnace Bins & Marshalling Yard at Tata.	7,50,000	...	...	2·50	2·50	2·50	...
25. Blast Furnace Blowers	5,00,000	2·5	2·5	...	...	...	...
26. Dry Blast (Silica-Gel) "C" & "D" Furnaces.	7,50,000	...	...	2·5	5·0	...	...
27. Manipulator, Shear side Cogging' Rolls Blooming Mill E. P.	1,50,000	...	1·5	...	...	...	...
28. 2nd Hot Bed, Sheet Bar & Billet Mill.	1,75,000	...	...	1·75	...	...	...
29. Foundry Extension & Equipment.	1,50,000	...	1·5	...	...	...	...
30. Miscellaneous	10,00,000	2	2	2	2	2	...
TOTAL	2,07,45,000	15·0	59·45	55·50	53·50	24·0	...

Work to complete plant to obtain maximum efficiency and minimum cost.

LIST "B."

Items.	Estimated cost.	Fiscal years. Expenditure in Lakhs of Rupees.					
		1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Rs.						
1. Benzol Recovery, including Refrigerating Plant.	23,00,000	...	...	...	...	15	8
2. Chrome, Magnesite and Silica Plant.	12,50,000	...	...	...	...	7.5	5
3. Metallurgical Research Department.	5,00,000	...	1	1	1	1	1
4. Roll Making . . .	4,00,000	...	...	...	...	2	2
5. Sleeper Plant . . .	2,00,000	..	...	...	...	...	2
6. Ore, Flux and Coal Mechanical Stocking and Reclaiming Apparatus.	6,00,000	...	...	...	...	3	3
7. 100-Ton Cranes, Open Hearth Plant, Remodelling 4 Old Open Hearth Furnaces, New Ladles, etc., for (90-Ton Heats).	5,50,000	...	...	...	...	2	3.5
8. Works Fencing . . .	1,25,000	...	...	...	...	...	1.25
9. Extension to Shipping, Building and Equipment Plate Mill.	1,25,000	...	...	...	...	..	1.25
TOTAL . . .	60,50,000	...	1	1	1	30.5	27.00

SUMMARY.

		1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Rs.	Lakhs.	Lakhs.	Lakhs.	Lakhs.	Lakhs.	Lakhs.
List "A"	2,07,45,000	13.00	59.45	55.50	53.50	24.00	...
List "B"	60,50,000	..	1	1	1	30.50	27.00
GRAND TOTAL	2,67,95,000	15.00	60.45	56.50	54.50	54.50	27.00
Say	2,70,00,000	15.00	60.00	60.00	60.00	50.00	25.00

Start intensive extensions year 1927-28.
 Finish during year 1932.
 Maximum Production and Minimum Costs 1934.

Enclosure No. 8.

Rail Orders from the Palmer Group of Railways.

As the Board are aware, the Steel Company had in 1919 entered into contracts with the Palmer Group of Railways for the supply of all the requirements of these railways at a price of Rs. 122-8 per ton for rails 60 lbs. and above and Rs. 152-8 for fishplates. The contracts were for six years. These contracts expired in March 1926. Under them we supplied in all, during the six years 210,578 tons of rails and 7,939 tons of fishplates. The average price of similar material ordered from England during these six years was as follows:—

Years	Rs.	
	Rails.	Fishplates.
1920-21	330.3	442.5
1921-22	165.1	240.0
1922-23	145	188.5
1923-24	148.5	193.5
1924-25	135	175
1925-26	155	207

On the total tonnage supplied, therefore, the loss to the Steel Company and the advantage to the Railways from these contracts was Rs. 82.10 lakhs. In this calculation we have not taken into account the price of Continental rails, because, as a matter of fact, we believe no Continental rails have been supplied to the Indian Railways. The English price is that quoted in the trade papers and we are aware that large quantities might have been obtained at a slightly lower price but it is obvious that the six years' contract has substantially benefited the Railways in question. We may add that during the period that the Railways were obtaining our rails at a price very greatly below the cost at which they could have bought elsewhere, practically no complaints were made as to the quality of our rails. On the contrary, the Railways were continually pressing for additional deliveries.

On the expiry of the contracts we approached the Railway Board in September 1925 as to supplies subsequent to 1926. We were informed that the requirements of all the Indian Railways subsequent to 1926 were approximately 171,000 tons of which 80,000 tons represented the requirements of the Palmer Group of Railways. We informed them that we could manufacture 171,000 tons of rails and at once asked that in consideration of the fact that in England the English Railways had publicly announced their intention of using no rails other than of English manufacture, we should be given orders at a reasonable price for the entire tonnage of rails required by the Indian Railways in consideration of the very heavy loss which we had sustained on the contracts.

The orders for the State Railways which now include the Great Indian Peninsula and the East Indian Railways, were already assured to us by our contract with the Railway Board, the price for which is Rs. 130 per ton for rails. With regard to the Bengal Nagpur Railway, we stated that we would settle with them direct. The negotiations, to which we now refer, were only concerned with the order from the Palmer Group of Railways. Repeated discussions and negotiations took place between the Company and the Railway Board on this subject. We were asked in October 1925 what was the lowest price at which we would offer to supply and we were informed that the Consulting Engineers in England had advised the Home Board of the Indian Railways that tenders should be called for for a period of five years for the total quantity required. We pointed out that this made it extremely difficult for the Steel Company to tender because of the uncertainty as to the protection that would be accorded to the industry after the 31st March 1927 and that the practical effect of this proposal would be to shut out Indian

suppliers. The Railway Board undertook to assist us in the matter and asked us in October 1925 what was the lowest price at which we could supply. We then offered to supply all the requirements of the Palmer Railways at a price of Rs. 115 per ton for rails f.o.r. Tatanagar. We received no reply regarding this but we were subsequently informed that the Palmer Railways were calling for simultaneous tenders. Eventually in December 1925 we were again asked by the Railway Board what would be our lowest price to enable the Railway Board to induce the Palmer Group to abandon their intention of calling for simultaneous tenders we replied that we had already quoted the lowest price that would in accordance with the scheme of protection afford us an adequate return but rather than that foreign rails should be imported and our new rail mill stand idle we were prepared to reduce our price to Rs. 105 f.o.r. Tatanagar, although this rate entailed great risk of actual loss to us.

No official reply has so far been received to this revised offer from the Railway Board though we understand that they have induced some of the Railways to accept our offer and are grateful to them for their assistance. In the meantime tenders have been called for in England (but not simultaneously in India as stated) for rails on account of the South Indian Railway, The Burma Railway and the Madras and Southern Mahratta Railway.

The South Indian Railway is said to have placed an order for 1,300 tons of 90 lbs. rails in England at £6-10-0 f.o.b. The Burma Railway invited tenders for 16,000 tons of 60 lbs. rails. To secure this contract the Steel Company tendered as low as Rs. 100 per ton f.o.r. Tatanagar, but we are definitely informed that the order has been placed in England. We believe the price to be £6-10-0 to £6-6-0.

The Madras and Southern Mahratta Railway have also invited tenders in England for about 19,000 tons of rails for which we have tendered Rs. 105 per ton f.o.r. Tatanagar. The Railway has offered to take from the Steel Company 1,980 tons subject to delivery within December 1926 or January/ March 1927. The balance of the order has, we understand, been placed in England.

So far three of the Palmer Railways have placed orders with the Steel Company for rails. These are:—

	Rails. Tons.	Fishplates. Tons.
The N. G. S. Railway:		
Rails Rs. 105; Fishplates Rs. 175 per ton f.o.r.		
Tatanagar	11,445	326
The B. and N. W. Railway:		
Rails Rs. 105; Fishplates Rs. 155 per ton f.o.r.		
Tatanagar	4,800	180
The B. B. and C. I. Railway:		
Rails Rs. 105; Fishplates Rs. 155 per ton f.o.r.		
Tatanagar	17,745	791

One of the problems of these orders is of course the fact that the Railways require delivery at considerable distances from our Works and that, by reason of cheap freight, they are able to import cheaply at the Ports. In the case of the three Railways in question, the South Indian, the Madras and Southern Mahratta and the Burma Railways, the freight at railway rates which is to be deducted from the price f.o.r. Works in order to compare the cost of our rails to the Railway with that of imported rails is as follows:—

	Rs.
Tatanagar to Rangoon	16
Tatanagar to Madras	16

and we are aware that this must largely affect their consideration of this question.

We do not think, however, that the industry in this country has been treated fairly by the Railways concerned in connection with these orders. It seems obvious that our quotations have from time to time merely been used by them in order to obtain lower prices in England from English Manufacturers. Simultaneous tenders have not been called for nor have the Railways concerned made any effort to assist us in this matter. On the contrary, on the expiry of these contracts, from which they derived such great benefit, they and their Consulting Engineers have, so far as we can see, done everything possible to divert these orders to England and to prevent our obtaining them. For the first time we have had serious complaints as to the quality of our rails and we are informed that the latest specification issued by the Consulting Engineers, Messrs. Rendel Palmer and Tritton, definitely states that rails made by the Basic Bessemer Process will not be considered. The only object of this is to exclude rails of Indian Manufacture as the Basic Bessemer Process is not used in England. It is useless for us to complain of these matters to the Railways concerned. The influence of the Consulting Engineers and the Home Boards is such that we cannot counteract it, but we do urge that if the industry in this country is to succeed and if protection is to be of value to it, this tendency of the Indian Railways to avoid the purchase of Indian material should be checked and the only way it can be checked, so far as we can see, is by the imposition of a substantial duty. We have offered to supply all the requirements of these Railways at the average price paid by English Railways to English Steel Makers for the current year. We think that is a perfectly fair offer from the Indian Industry and we do not think that considering the very rigid system of inspection enforced in the case of our rails by Government, the fact that the State Railways and Government itself are fully satisfied with the quality of our rails and that these very Railways have themselves used them, the objections raised as to the quality and specification of our rails have any substance. It is for these reasons that we have suggested a duty on rails and also anti-dumping legislation to prevent the unfair competition of which we have complained. We can see no reason why Indian Railways practically owned by the State should not insist on the purchase of Indian rails just as English Railways have insisted on the purchase of English rails, and we trust the Board will agree with us.

Enclosure No. 9.

Steel Sleepers.

In February 1915, at a Conference held in Jamshedpur, the Chief Engineers of all the Indian Railways (State and Company-owned) having decided upon a standard type of steel sleepers for the Indian Railways, the installation of a pressed steel sleeper plant at Jamshedpur was undertaken as one of the items of the Greater Extensions programme. The plant was completed early in 1925 at a cost of Rs. 3,20,000 and the first sleepers manufactured were for the Bombay, Baroda and Central India Railway, for whom the Steel Company undertook an order for 2,500 tons.

When the Steel Company entered into agreements in 1920 with the Palmer Group of Railways for the supply of rails, supplies of steel sleepers were also provided for in the agreements. The Agreement for pressed steel sleepers provided that the Railways will take all their requirements of steel sleepers for six years commencing from the date of the first delivery, the price being Rs. 9 per sleeper or Rs. 125 per ton f.o.r. Tatanagar for broad gauge sleepers. Subsequently the Railways have for the most part adopted different types of sleepers and are not now prepared to adopt a standard sleeper. Partly for this reason and partly because we were unable to manufacture, we have not tendered, on any large scale, for the supply of sleepers to any of the Railways with whom we have contracted though we have supplied small quantities to the Bombay, Baroda and Central India Railway.

The capacity of the present plant is 5,000 tons per year. We have however provided in our development programme for the installation of additional presses which will raise the output to about 25,000 tons per year.

Our estimated average cost for the next five years for pressed steel sleepers is Rs. 99 per ton, to which must be added Rs. 6 for fittings, or a total of Rs. 105.

The net margin given to us by our contracts is, therefore, Rs. 20 against the Rs. 55 which we require as the margin between works cost and selling price as stated in our representation. Outside our agreements, the remaining market for sleepers in India consists of the Railways with which we have no contract. These tender for their sleepers and in their case we shall have therefore to compete with the imported material.

According to the trade papers, the landed price of imported sleepers in India is between Rs. 150 and Rs. 160, but these figures certainly do not represent the actual price at which they enter the country. Two or three Railways have semi-officially informed us that they can purchase imported sleepers at rate appreciably cheaper than our contracted rate of Rs. 125. It will be an easy matter for the Tariff Board to ascertain what exactly that price is. Its low level seems confirmed by the fact that none of the Palmer Railways have attempted to enforce their contract with us.

To summarize, our position regarding the manufacture of steel sleepers is exactly similar to what our rail position was when the Board published their first report in 1924.

As for rails, the sleepers contracts were made when prices were at their lowest level and if the Company sells according to the contracts, the margin over works cost is insufficient and the result is a loss. If it sells to the Railways outside its contracts in competition with imported material, the margin is still lower and the loss greater.

We have therefore asked for protection as in the case of rails and have suggested that it should take the shape of a bounty of Rs. 20 per ton and the remainder in the shape of an import tariff duty of Rs. 54 per ton.

Enclosure No. 10.

Protection for Hardware Tools, such as Picks, Powrahs, Hoes, etc.

(1) At the first enquiry by the Tariff Board into the conditions of the Steel Industry in India in 1923, the Agricultural Implements Company, Limited, applied for protection in the form of an increased duty of 20 per cent. (making with the original duty of 15 per cent., a total duty of 35 per cent.) on Picks, Powrahs or Kodalties, etc., manufactured by the Company for a period of five years. The Tariff Board visited the Company's Works at Jamshedpur and examined its General Manager orally and recommended, in their Report dated the 26th February 1924, that the existing *ad valorem* duty be raised to 25 per cent. on Picks, Powrahs or Kodalties and Hoes.

(2) The Government of India accepted that recommendation but the proposal was not passed by the Indian Legislative Assembly as in the discussion of the Steel Industry (Protection) Bill in June 1924 in the Indian Legislative Assembly the objection was taken that tools needed by the poorer class of agriculturists should not be taxed. This was, we submit, a misconception. The machine-made implements produced by this factory do not compete with the ordinary locally made implements used by cultivators and are mainly used by Railways, Irrigation Works, the Public Works Department, Mines and large plantations. Cultivators depend almost entirely on cheap tools made from scrap material by local blacksmiths.

(3) The Agricultural Implements Company as a result could not compete with the imported article, and the Company was taken into voluntary liquidation on 27th July 1925. On the 27th November 1925 the Tata Iron and Steel Company purchased the Factory from the Liquidators for Rs. 10,69,701-5-0. Irrespective of the investment of Rs. 10½ lakhs in the capital of the Agricultural Implements Company, Limited, which was all lost, the Tata Iron and Steel Company's advances to that Company totalled Rs. 17,21,438-4-7. However, for the purpose of accounts, the Agricultural Implements Company's properties purchased by the Steel Company are shown in the Steel Company's books as follows:—

	Rs.
Buildings, plant, machinery, etc., at the valuation made by an independent Consulting Engineer, Mr. H. Burkinshaw, at the instance of the Bihar and Orissa Government in August 1924	12,24,988

The balance representing stock and stores has been taken into the revenue account.

(4) The plant is now being operated as a Department of the Steel Works from January 1926. The figures of production for the first three months of operation are given below. The production will be pushed up to 80,000 tools a month as fast as possible and there are orders on hand for that quantity. The production during March was 56,607 tools and the average Works cost during March 1926 was Rs. 478 per ton as given below. The steel supplied has been charged at Rs. 109.51 per ton.

Figures of Production.

Products.	January 1926.		February 1926.		March 1926.	
	Number.	Weight.	Number.	Weight.	Number.	Weight.
		Tons.		Tons.		Tons.
Picks	11,220	31.25	11,054	32.24	15,368	44.75
Powrahs	14,004	24.23	32,911	51.11	30,152	47.87
Hammers, etc.	4,457	8.31	4,975	8.40	9,533	16.32
Octagonal bars	234	4.01	1,617	22.76	1,534	22.81
TOTAL	30,015	67.80	50,417	114.51	56,607	131.75

Works costs as per March 1926 cost sheet.

Products.	Production.	Total cost.	Cost per ton.
	Tons.	Rs. A. P.	Rs.
Picks	44·75	22,113 7 5	494·16
Powrahs	47·87	30,073 8 9	628·23
Hammers, etc.	16·32	6,354 14 3	389·39
Octagonal bars	22·81	4,435 12 6	194·47
TOTAL	131·75	62,977 10 11	Average cost 478·01 per ton.

(5) Present average prices to consumers for tools delivered at Calcutta are as follows:—

	Rs.
	Per ton.
Powrahs	641·8
Mamooties	691·4
Trenching Hoes	654·37
Average for all Powrahs, etc.	662·52
Pickaxes	486·4
Miners' Picks	618·78
Beater Picks	518·83
Average for all Picks, etc.	541·33
Hammers	628
Axes	993·6
Crow bars, Chisels, Drills, etc.	312·5

Production during March 1926.

	Total value.
	Rs.
Picks 44·75 tons at Rs. 541·33	24,224·5
Powrahs 47·87 tons at Rs. 662·52	31,714·8
Hammers, etc., 16·32 tons at Rs. 628	10,249·0
Bars 22·81 tons at Rs. 312·5	7,128·1
Total 131·75 tons	73,316·4

Average price per ton Rs. 556·4.

About 20 per cent. should be deducted from this price for commission to selling agents and other expenses. The net selling price therefore comes to Rs. 441 per ton.

Compared with the average Works cost for March 1926, this shows a loss of Rs. 33 per ton without taking into account charges for Depreciation and interest.

	Rs. Per annum.
If we take the average rate of depreciation for buildings and machinery at 7 per cent. on the reduced valuation of the block account, the depreciation on Rs. 12,24,988 at 7 per cent. will be	85,750
Interest at 6 per cent. on working capital of Rs. 1.50 lakhs will be	9,000
Total	94,750
Return on capital at 6 per cent. will be	73,500
TOTAL	1,68,250

Overhead charges per ton.

	March 1926 Basis 80,000 Tools Basis.	
	Rs. per ton.	Rs. per ton.
Depreciation	54.24	38.83
Interest on Working Capital	5.69	4.08
TOTAL	59.93	42.91
Return on Capital Investment	46.49	33.29
Total Overhead	106.42	76.20
Average Works Cost on the Basis of March 1926	Rs. 478	Rs. 478
Total Works Cost including Overhead	Rs. 584.42	Rs. 554.20
Present Average Selling Price	Rs. 445.00	Rs. 445.00
Deficit	Rs. 139.42	Rs. 109.20

As production increases, these costs will be reduced.

(6) The Factory has not made the progress anticipated when the first Report of the Tariff Board was written owing to the financial difficulties of the late Agricultural Implements Company, but we are confident that if the original recommendation of the Board is accepted and the duty is increased to 25 per cent., we could, with this temporary protection, make the plant a success.

(7) The figures for Indian consumption of these tools cannot be obtained from the customs reports because no separate entry is made and tools are

classed with other hardware. We, however, provisionally estimate from the information received from our selling agents that the annual Indian consumption is as follows:—

	Tools.
Tea Trade	80,000
Coal Trade	100,000
Railways	200,000
Calcutta and Hinterland	700,000
Bombay and Hinterland	600,000
Madras	200,000
Burmah	200,000
TOTAL	2,080,000

The consumption in Northern India and Sind is small. The custom is to use tools made up locally by blacksmiths and these localities use tools of different shapes. At present we are equipped to make those required by the Coal and Tea industries and at Calcutta, Burmah and part of Madras. We have just begun the manufacture of the Bombay type Powrahs also.

There is thus a sufficient market even if the production is raised to 100,000 tools per month.

Besides the regular large demand for these tools from the Public Works Department, Railways and other Local Bodies, a considerable number of special tools are also required by the Ordnance Department both during peace and in war times, and it may be pointed out that the factory would be extremely valuable to the Army as a potential munitions Factory. The Director-General of Supplies has already asked us to co-ordinate with his Department in guaranteeing the necessary supplies of tools in and after mobilisation. During the late war very high prices were paid by Government for these tools which were all then imported.

(8) Lastly it is necessary to specifically refer to the objection raised on the last occasion, that the tools for which the protective duty was recommended by the Tariff Board were mainly used by agriculturists. Unfortunately the name of the Company also strengthened this argument. But the tools that were and are manufactured at the factory, such as Picks, Powrahs, or Kodalties and Hoes, Crow Bars, Hammers, Axes, Chisels are in no country, not even in India, classed as Agricultural Implements. Agricultural Implements properly so called are Tractors, Ploughs, Dairy and Farm appliances, etc., and are generally allowed free of duty in all countries. Picks, Powrahs, Shovels, Hammers, Crow-bars, Axes come under the group Hardware and are at present subject to a 15% duty in India. In other countries, the duties are:—

	British Preference.	Inter-mediate.	General.
Canada:—			
Axes, Scythes, Sickles, Hoes, Shovels and Spades	10%	15%	20%
Adzes, Hatchets, Metal Wedges, Sledges, Hammers, Crow bars, Picks, Mattocks	15%	27½%	30%
British North America, New Foundland:—			
Adzes, Axes, Wedges, Sledges, Hammers, Crow bars, Picks, Anvils, Shovels and Spades, edged tools of all kinds for hand and machine use	25% <i>ad valorem</i> .		

United States of America :—

Shovels, Spades, Scoops,
 Scythes, Sickles, Grass
 Hooks 30% *ad valorem*.

Wedges, Sledges and Crow bars 1½ cents per lb. = \$ 30·80 per ton.

(9) We therefore suggest that a new entry be made in the Tariff Schedule in No. 90 in the Statutory Schedule as follows :—

“ 90. Hardware, Ironmongery and Tools.

Picks, Kodalies, Powrahs, Mamooties, Hoes, Shovels, Bill hooks, Axes, Sledge Hammers, Hammers of all sorts, Wedges, Crow bars, Claw bars, Pruning knives, Drill bars, Straw Choppers, Cold chisels, Jackpans, Mattocks	25%
All other sorts not otherwise specified	15% ”

Enclosure No. 11.

Regarding Production of Wire Rods.

The production of wire rods for the Indian Steel Wire Products, Limited, with our present equipment is out of the question and when the subject was previously considered by the Tariff Board in October last we stated that we could be in a position to roll 250 tons monthly of $\frac{1}{4}$ " wire rod in August 1926—that was in 10 months' time. We have since discussed the matter with the Indian Steel Wire Products, Limited, and have been considering it carefully. Subsequent to our statement to the Board we found that there were very great difficulties in the way of rolling this rod either on the old Mills or on the new Mills which we explain below. We discussed the position with the Indian Steel Wire Products, Limited, and they agreed that we should await the publication of the Tariff Board's Report on the subject before actually incurring expenditure which might eventually prove useless. The Report has not yet been published, but we have arranged with the Indian Steel Wire Products, Limited, that we will discuss the whole question again as soon as it is made public. In the meantime, with their full consent we have done nothing for the following reasons:—

There are two mills on which this rod could be rolled—the old 10" mill and the merchant mill. The old 10" mill could not produce anything like the quantity of wire which would be required by the Wire Products, Limited, with the present layout. It could not produce more than 50 to 60 tons monthly working full time, and the length of each piece would be much too short to make a suitable coil as the billets that can be charged are limited in size and length. It would, therefore, be necessary to make very extensive alterations to this mill to produce sufficient wire rods to be of any use to the Wire Products, Limited, and to produce the rod in coils of reasonable weight. The alterations necessary, we estimate, would cost between Rs. 75,000 and Rs. 1 lakh and would take from nine months to a year to complete. After the alterations are completed, the cost of producing the rod would be about Rs. 145 per ton. The prices quoted in recent trade magazines for American and British rod are 45 dollars and £9 per ton respectively. Taking exchange at Rs. 275 per 100 dollars and 1s. 6d. per Rupee the average price of British and American rod is Rs. 121-14-0 per ton. Adding 10s. the total price payable to us by the Indian Steel Wire Products, Limited, on the present prices of foreign rod is Rs. 128-9-0. There would, therefore, be a loss in the cost of producing the rod on the old Mill after the alterations are made of about Rs. 17 per ton. On 3,000 tons annually the loss would be approximately Rs. 51,000 and on 5,000 tons of rods annually the loss would be Rs. 85,000. Any fall in the price of foreign rod would increase the loss.

To produce the rod on the merchant bar mill would also involve the Steel Company in very heavy loss. The Tariff Board were informed last October that we might be able to produce 15 tons a day when we start to roll but the maximum we could hope to get on this Mill would be 40 to 50 tons a day. If we take the maximum daily output of rod on the merchant mill to be 50 tons it would take about 5 days monthly to roll 250 tons of rods. Taking the average rate of output on other products in the merchant mill to be 100 tons per shift we would lose approximately 1,500 tons of other product from this mill, and if the cost and selling price of the ordinary product be taken at Rs. 95 and Rs. 125 per ton respectively—this does not take the ingot bounty into account—we lose an average profit of Rs. 30 per ton on 1,500 tons monthly or Rs. 45,000. The cost of producing wire rod on the merchant mill would, as near as we could judge, be Rs. 189 per ton whereas the average price of British and American rods plus 10 shillings which is the price we would get from the Wire Products, Limited, amount to only Rs. 128-9. There would be a loss on the rods produced of Rs. 61 per ton which on 250 tons monthly would make a total loss (including the loss of profit on other product) of Rs. 60,250 per month. In other words by producing 3,000 tons of rods annually on the merchant mill our loss would be roughly Rs. 7,23,000 annually and, should it be necessary to increase the rod production to 5,000 tons annually, the loss would

be Rs. 12,05,000, i.e., the Steel Company would lose annually more than twice the total Capital of the Wire Products Company. Protection cannot help us here as for the first 5 years of the contract any additional duty has been excluded from the price. The Wire Products, Limited, are at present buying continental material and the only result if we roll for them is that they will pay more for their raw material and we should lose heavily. So far as we can see, the only sensible plan, by which we can manufacture this rod, is to erect a complete new and modern mill for the rolling of small sections including strips, hoops and rods below $3/8"$. In order to keep our promise that we would manufacture this material, we are prepared to erect this mill. We estimate that the cost of the mill would be some Rs. 15 lacks and that it would be completed in two to three years. It is a logical development of the existing plant and we have always contemplated it, as it will give us a fresh outlet for our steel and will enable us to manufacture strips and hoops possibly from steel that has been rejected for rails but, owing to the shortage of finance we have been unable to contemplate its erection up to the present. This, we are satisfied, is the correct solution of the difficulty. We have discussed the matter with the Indian Steel Wire Products, Limited, and they inform us that they are quite prepared to continue without requiring steel from us until we are ready to supply from this new mill. A rebate may be given to wire manufacturers until this size is produced in India.

Enclosure No. 12.

Note on protection against imports from countries with depreciating currencies.

In our main representation we have already requested legislative protection against the unfair competition of foreign countries dumping their excess production in this country at a price lower than their home price. This danger from dumping is possible from any country with excess production whether it is on the gold standard or not. But there is another kind of unfair competition which comes from countries with depreciating currencies like Belgium and France. In September last when the Legislature passed the resolution for additional bounties, the French and the Belgian Sterling exchanges or Cross rates were about 102 and 111 respectively. On the seventh May of this year they are 155 and 159 respectively. That is, these currencies have depreciated 50% since last September. Therefore, other things being equal, these countries are enabled to market their goods 33% cheaper in India than they would otherwise do and this naturally upsets the whole basis of the protection recommended by the Tariff Board. It is against this danger that we request the Tariff Board to recommend suitable measures in order that the duty or bounty that they recommend may continue to be effective whatever the fluctuations in exchange in countries of depreciated currency. The only way to guard against this that suggests itself to us would be for the Tariff Board to frame their recommendations for additional duties on the basis of prices in gold standard countries with an extra duty for imports from countries with depreciating exchange, this extra duty varying with the variations in exchange in certain proportions according to the amount of depreciation from par of such currencies.

One way of doing it would be to follow the method adopted by Australia when it imposed a special duty on Indian pig iron under the mistaken belief that the correct gold par of the Rupee was 10 to the £. (See Indian Trade Journal of 30th October 1924, page 152.) They proposed that there was to be no special duty if the depreciation from its gold value at par did not exceed 20 per cent. Thereafter a graded special duty was imposed. We suggest that the same rule may be followed in India, i.e., imports from France, Belgium, Italy, etc., should not be chargeable to this special exchange duty so long as the depreciation from the gold par did not exceed 20 per cent. and that thereafter for every 10 per cent. of depreciation a further 5 per cent. extra be charged for this special duty. This will not be considered extravagant if we point out that in the cost of steel, labour at every stage forms the principal part of the cost and the cost of such labour does not adjust itself as readily to a change in exchange as the prices of commodities do. As for overhead charges, and interest on capital, these practically remain the same. It is true that labour costs gradually do get adjusted to the new level of exchange but this takes a certain amount of time and during this period the manufacturers of such depreciated currency countries can sell at absurdly low rates, and the industry in India would be seriously crippled before the adjustment can be completed. The slowness of this adjustment may be appreciated from the following instance of Belgian Bars.

3rd October 1925	Fr. 585	1,000 Kilos Ex.	109 5 francs.
10th April 1923	650	„ „ „	130 90 „

It will be noticed that while exchange has depreciated by about 20 per cent., the price has varied by only about 11 per cent. The result is that the Belgian makers who charge £5 35 can to-day sell the same materials at £4 89 and make the same profit and even pay a little more to his labour, and all this only as a result of variation in exchange. The position has recently become much worse as in the last 2 or 3 weeks alone Belgian exchange has depreciated a further 27 points to 158 to the £. Similar wild fluctuations have occurred in French exchange and we submit that it is imperative for the Tariff Board to recommend some measures of protection against countries with depreciated currency if their recommendations are not to be nullified by a sudden upheaval

in exchange perhaps even before their report is submitted to the Assembly for necessary action.

We may add for the information of the Board that while we suggest following the Australian model and not charging anything by way of special exchange duty until the depreciation exceeds 20 per cent of the gold par, the provisions in this behalf in South Africa are even more drastic. The Customs Tariff and Excise Duty Amendment Act of 1925 of that country provides in Chapter II as follows:—(Vide The Indian Trade Journal, Vol. LXXIX, No. 1,007 of 8th October 1925) pages 36—37.

(1) Whenever after investigation and report by the Board of Trade and Industries, the Minister is satisfied that goods which are of a class or kind produced or manufactured in the Union have been or are being exported to the Union—

- (a) at an export price which is less than the domestic value thereof plus the extra cost of packing and packages for export, carriage to the port of shipment, and all other expenses incidental to placing the goods on boardship ready for exportation to the Union; or
- (b) at an export price which, owing to the depreciated exchange value of the currency of the country in which the goods were produced or manufactured or from which they were exported, is less than the export price of goods of the same class or kind imported into the Union from countries the exchange value of whose currency in relation to Union currency is not depreciated by more than five per centum, and from which such goods on importation are not otherwise liable to any dumping duty in terms of this section; or
- (c) at a rate of freight lower than the rate prevailing at the date of shipment for those classes of goods usually rated for shipping purposes on the same basis, or at ballast rates of freight, or freight free, or that by reason of the granting of rebates, refunds, or other allowances the net amount of freight payable is lower than that prevailing at the date of shipment; or
- (d) that they are being sold or offered for sale at a port of entry in the Union in the usual and ordinary course of trade for an amount which is less than the domestic value thereof plus the extra cost of packing and packages for export, inland carriage, sea freight, insurance and all charges to that port, including landing and delivery charges and any duty (other than a dumping duty) payable under this Act or any amendment thereof; or
- (e) that a bounty has or will be granted in respect of such goods in the country in which they were produced or manufactured or from which they were exported, by way of a bonus, rebate, subsidy or otherwise, whether granted by a Government or other authority or person;

and is further of opinion that detriment may from one or more of the above causes result to an industry within the Union, and that it would be in the public interest to impose in respect of such goods a dumping duty, the Governor-General may by proclamation in the "Gazette" notify the class of goods and declare that one or more of the dumping duties enumerated in subsection (2), and set forth in such proclamation, shall be levied upon goods of such class on importation into the Union from a country or countries named in the proclamation; and from and after the date of publication of such proclamation in the "Gazette" such dumping duty or duties shall, in addition to any other duties payable thereon be charged, levied, collected and paid on goods so notified on importation into the Union from the countries named: Provided that—

- (i) no dumping duty or duties shall be imposed in respect of goods shipped to the Union from the country named in the proclamation prior to the date of publication thereof in the "Gazette," and

(ii) such duty, or where there is more than one form of dumping, the total of such duties, shall not exceed one-half of the value of the goods for duty purposes, as defined in section fourteen of this Act.

(2) The dumping duties which may be imposed in terms of sub-section (1) shall be the following:—

- (a) "ordinary" dumping duty, which shall be the difference between the export price and the domestic value *plus* the extra cost of packing and packages for export, carriage to the port of shipment, and all other expenses incidental to placing the goods on boardship ready for exportation to the Union: Provided that such difference is greater than five per centum of the export price;
- (b) "exchange" dumping duty, which shall be the difference between the export price of the goods in question and the export price of goods of the same class or kind imported into the Union, from countries, the exchange value of whose currency in relation to Union currency is not depreciated by more than five per centum, and from which such goods on importation are not otherwise liable to any dumping duty in terms of this section;
- (c) "freight" dumping duty, which shall be the difference between the net freight paid or to be paid and the freight which would have been payable at the rate prevailing at the date of shipment for those classes of goods usually rated for shipping purposes on the same basis: Provided that such duty shall not apply to goods of which the value for duty purposes, added to the marine insurance and freight charges, exceeds ten pounds per ton of 2,240 lbs.;
- (d) "sales" dumping duty, which shall be the difference between the selling price in the Union and the domestic value *plus* the expenses and charges set forth in paragraph (d) of sub-section (1);
- (e) "bounty" dumping duty, which shall be the amount of the bounty referred to in paragraph (e) of sub-section (1).

We give below a summary of measures adopted by Australia to meet the danger of depreciating currencies:—

Customs Tariff (Industries Preservation) Act, 1921 (No. 28 of 1921).

Under section 8, Dumping Exchange Duty (for the protection of Australian industries), as originally provided, the maximum amount of duty that could be imposed was *ad valorem* 75 per cent. Owing to the rapid depreciation of the currency of some European countries after the Act was introduced, the maximum of 75 per cent. proved to be insufficient to meet the competition from such countries. Section 8 was therefore amended, providing that when the currency of the country of origin or export of any goods has depreciated to less than one-twelfth of its normal par value as compared with the pound sterling, the duty which shall be charged under this section shall be the difference between—

- (a) the landed cost in warehouse in Australia (including duty calculated in accordance with the provisions of the Customs Act, 1901-1920), *plus* a percentage of profit to be determined by the Minister after inquiry and report by the Tariff Board, and
- (b) The Australian wholesale price of similar goods of Australian manufacture.

The Act provides that the Minister for Trade and Customs, after inquiry and report by the Tariff Board, may publish a notice in the Commonwealth Gazette specifying the goods upon which special rates of duty under this Act shall be charged and collected.

We also reproduce an article from the special correspondent of the *London Times* appearing in the Trade Engineering Supplement, London, March 13th, 1926:—

- “Several Canadian industries will benefit from the action of the Department of Customs and Excise in ruling that all currencies which are depreciated by more than 50 per cent. are “substantially depreciated.” The effect of such decision is to bring into force the legislation of 1922, requiring imports from countries with “substantially depreciated” currencies to be appraised by the Canadian Customs officers, for duty purposes, at the values which would be placed upon like goods produced in the United Kingdom and exported to Canada. Considerable additional protection will be provided in this way for certain Canadian industries, including the woollen and silk manufacturing industries, which have been complaining of increasing imports from France; the iron and steel industry which has had keen competition from France and Belgium and the Canadian glass products industry.
- “The depreciated currency measure of 1922 was a make-shift safeguard against so-called “exchange dumping” and was hurriedly devised by the King Government in response to widespread agitation after the depreciated currency legislation of Sir Henry Drayton had been repealed. Hitherto this measure had been applied only to imports from Germany, Austria, Hungary, Czecho-slovakia, Yugoslavia and Russia. Germany was held to be exempt after the currency of that country was placed on a gold basis. The rate of the Austrian shilling (gold) as compared with the standard dollar of Canada, has been officially proclaimed at 14.07 cents, and instructions have been issued recently to Canadian Collectors of Customs that the standard currency of Austria is not now regarded as substantially depreciated and that the depreciated currency legislation no longer is applicable to Austrian products, but that the latter shall be valued for duty at the fair market value of similar goods as made and sold for home consumption in Austria.
- “The Hon. Jacques Bureau, while Minister of Customs and Excise, refused to apply the depreciated currency measure to any of the countries with which Canada was allied during the war, but the new ruling will make it applicable to all imports from France, Belgium and Italy, as well as those from Czecho-slovakia, Yugoslavia, Hungary and Russia.”

We request the Board to take these considerations into account in making the recommendations.

Enclosure No. 13.

Correspondence regarding levy of duty at protective rates on "Sheets, Black" which have undergone some simple process.

COPY.

TATA IRON AND STEEL COMPANY, LIMITED.

No. G.-1159/25.

Bombay, 17/18th September 1925.

To

THE SECRETARY to the Government of India,
Department of Commerce, Simla.

SIR,

Before the Protective Tariff on steel was introduced, the Tariff contained two items of sheets, (a) ordinary black sheets and (b) black sheets which have been cold rolled or planished or smoothed. These had different tariff valuations but were assessed to the same rate of duty on the different valuations. When the Tariff Board's first recommendations were adopted, the rate of duty on black sheets was raised to Rs. 30 a ton. No alteration was made on the second classification; so now we have "black sheets, whether corrugated or flat," assessed at Rs. 30 a ton, and "sheets, if annealed, which have either been cold rolled or smoothed, including planished, pickled or cleaned by acid or other method or process," assessed at 10 per cent. on a tariff valuation of Rs. 200, or, in other words, Rs. 20 per ton.

There is no limitation on the variety of processes which can be used and there is no doubt that if sheets are simply scoured by sand or possibly even if rubbed with an oily rag they must be admitted at 10 per cent. on Rs. 200 valuation. This means a saving of Rs. 10 per ton in the duty.

Even if some very simple method of cleaning is not undertaken it is a simple thing to put the sheets once through the cold rolls. Such a process would cost very much less than Rs. 10 a ton and would pay importers.

Up to date no very great advantage has been taken of this section, but we now have it from one of our customers that he is getting all his sheets in at Rs. 20 a ton duty.

It is clear that this section of the Tariff was meant to deal with sheets of a better and higher quality than ordinary black sheets and it is anomalous that such sheets should be allowed to come in at a lower rate of duty if it is possible to bring black sheets within this special classification by the expenditure of Rs. 2 or Rs. 3 a ton. We need hardly argue that for importers to pay only 10 per cent. on Rs. 200 is evading the intention of the Steel Protection Act, and we ask you to deal with the matter as seems best to you at a very early date.

While on this subject, may we also bring another point to your notice?

The Tinplate Company of India applied for the assessment of tin bar to be at 10 per cent. instead of Rs. 40 per ton. This the Central Board of Revenue agreed to and Government has confirmed in reply to a representation from us on the subject. The main reason for this ruling is that tin bar is not merchant bar because it is not stocked by merchants. The same principle is necessarily applied to other cases and the number of cases in which bars have been imported of high tensile steel has resulted in the assessment being at 10 per cent. The value of such high tensile steel is small and we do not cavil at the ruling of the Customs Department in these cases, but we would like to submit to you that experience has shown that the term "merchant bars" is not suitable because it is too vague. If Government, therefore, would be prepared to make a distinction based on tensile tests which can be easily ascertained by Brinnell's test, we feel that the work of the Customs

Department would be made easier and we should be more definitely certain as to how we stood.

We have the honour to be,

SIR,

Your most obedient servants,

TATA SONS, LTD., AGENTS,
(Sd.) JOHN PETERSON,

Director.

COPY.

GOVERNMENT OF INDIA,
DEPARTMENT OF COMMERCE.

Delhi, 4th November 1925.

No. 200-T. (25).

FROM

N. J. ROUGHTON, Esq., I.C.S.,
Deputy Secretary to the Government of India,

TO

MESSRS. TATA SONS, LIMITED,
Agents, The Tata Iron and Steel Company, Limited,
Bombay House, Fort, Bombay.

GENTLEMEN,

I am directed to refer to your letter No. G.-1159/25, dated the 17th September 1925, in which you requested—

- (1) that sheets which had merely undergone some simple process of cleaning should not be allowed to escape payment of duty at protective rates; and
- (2) that instead of the expression "common merchant" used before bar and rod in item No. 151 of the Statutory Tariff Schedule a distinction based on tensile test should be adopted.

2. As regards (1) I am to observe that annealing is a necessary condition in every case for admission of sheets to the lower *ad valorem* rate of duty and the Government of India do not think that you have reasonable ground for complaint if sheets which are both annealed and also subjected to some other treatment, such as cold rolling, etc., are assessed at 10 per cent. on a tariff valuation.

3. The second point raised in your letter has been noted for consideration.

COPY.

TATA IRON AND STEEL COMPANY, LIMITED.

Bombay, 23/24 December 1925.

No. G.-1592/25.

TO

THE SECRETARY to the Government of India,
Department of Commerce, Delhi.

SIR,

We have the honour to acknowledge receipt of your letter No. 260-T. (25) dated the 4th November 1925. We would respectfully request that the

matter might be reconsidered in view of the further explanation given in this letter.

Before the introduction of the protective duties the intention of the tariff was obviously that sheets, if cold rolled, should pay a higher duty because of the extra work done on them. Prices have since dropped and such sheets now pay Rs. 20 per ton duty instead of the higher duty existing at the time when the protective duties were enforced. If prices fall and the tariff valuation is reduced, the duty upon them will be reduced still further.

When protection was introduced the duty on cold rolled sheets was not touched because we do not manufacture these and the rate of duty on them was at that time sufficiently high to prevent any evasion of the protective duty. The position has now altered. Ordinary sheets sold by us are liable to a duty of Rs. 30 per ton. Cold rolled sheets, as already pointed out, are liable only to a duty of Rs. 20 per ton. From the letter of the Government of India it appears that they consider that these sheets have been subjected to two processes additional to those used for the ordinary sheets which we manufacture: (a) annealing and (b) some other form of treatment such as cold rolling, etc. We would point out that so far as annealing is concerned practically all the sheets sold in the Indian bazar, including ordinary sheets, are annealed as the bazar buys nothing but annealed sheets. All the sheets which we manufacture for sale are annealed. Secondly, we would point out that the cost of cold rolling for one pass would not exceed Rs. 4 or Rs. 5 per ton and that it is always possible that sheets might be smoothed with sand or by some other simple process and imported as cold rolled or smoothed, including planished, pickled or cleaned by acid or other method or process. In that case the duty on them will automatically be reduced by Rs. 10 per ton. If the tariff is not amended, we are confident that all sheets will be treated in some such way or other in order to avoid the duty and this would obviously be the effect of the tariff as it stands.

Further we would point out that the present tariff places the Customs officials in great difficulty with regard to this matter. We have recently ascertained that in Madras, for instance, the Customs are unable to say what sheets have or have not been treated—We cannot ourselves see what proof of this there can be that could be readily applied by the Customs Staff—and they have compromised by assessing all sheets thinner than 16 gauge at Rs. 20 per ton and all thicker sheets at Rs. 30 per ton. It is obvious that this, at any rate, is not the intention of the tariff and we think the fact should be brought to the notice of Government. The question is one of considerable importance both on account of the fact that the revenue from the protective duty on sheets is very considerable and also because the tariff, if allowed to stand, will certainly not afford the Steel Industry that protection in the matter of sheets which was originally intended. In writing this letter we desire to inform Government of the possibility of such wide-spread evasion of the protective duties.

We have the honour to be.

SIR,

Your most obedient servants,

TATA SONS, LTD., AGENTS,

(Sd.) JOHN PETERSON,

Director.

COPY

GOVERNMENT OF INDIA,

DEPARTMENT OF COMMERCE,

Delhi, the 26th January 1926.

No. 260-T. (52).

FROM

N. J. ROUGHTON, Esq., I.C.S.,
Deputy Secretary to the Government of India,

To

MESSRS. TATA SONS, LIMITED,
Agents, The Tata Iron and Steel Company, Limited,
Navsari Buildings, Fort, Bombay.

Subject:—Suggestion that "Sheets, Black," which have undergone some simple process should not be allowed to escape duty at protective rates.

GENTLEMEN,

I am directed to refer to your letter, No. G.-1592/25, dated the 24th December 1925 on the subject noted above and in reply to state that as a distinction has been drawn for many years in tariff valuations between sheets that are plain black and those that have been treated to some process and as the Tariff Board recommended in paragraph 114 of its first report on the Steel Industry that the distinction should continue by suggesting different rates of duty, the Government of India consider that it is not now open to them either to withdraw the distinction or bring sheets of the latter class under the protective rate of duty without further full enquiry. The opportunity for this will be furnished when the Steel Industry again comes under enquiry by the Tariff Board next year, and I am to suggest that you then raise the matter definitely with the Board.

2. In the meantime I am to invite attention to the following figures in the trade returns relating to the import of "Sheets and plates not galvanised or tinned".

	Not protected.	Protected.
July 1924 to March 1925 (9 months)	14,253	79,865
April to November 1925 (8 months)	5,839	49,194

It will be seen from these figures that the quantity of sheets that is escaping duty at the protective rate is probably not as large as it might be thought to be, and that the proportion of non-protected to protected sheets is showing a tendency to decrease.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) N. J. ROUGHTON,

Deputy Secretary to the Government of India.

LIST OF STATEMENTS.

N.B.—The numbers in Roman figures given in brackets are those of the corresponding statements in Volume I of the Evidence recorded in the first enquiry regarding the grant of protection to the Steel Industry.

No.	PAGE.
1. (XII) Statement showing conversion cost	63
2. (XIII) Statement showing the dates on which the Greater Extensions units came into operation	63
3. (XV) Statement showing the output of iron and steel for 1925-26	64
4. (XV) Statement showing expected output when plant has reached full production in 1933-34	64
5. (XX) Statement showing Works costs per ton of steel for the years 1923-24, 1924-25, 1925-26	65
6. (XXII) Statement of contracts for five years and over entered into by the Tata Iron and Steel Company, Limited, for the sale of pig iron	66
7. (XXIII) Statement showing the orders for rails for 1926-27	67
8. (XXIV) Statement of contracts for five years and over entered into by the Tata Iron and Steel Company, Limited, for the purchase of coal	68
9. (XXV) Statement of contracts for five years and over for the purchase of raw materials—Dolomite, Limestone, Manganese ore, Bricks	69
10. (XXVIII) Statement showing the average selling price per ton of pig iron	70
11. (XXXVI) Statement showing the average prices of coal paid by the Tata Iron and Steel Company, Limited, f.o.r. colliery for the years 1923-24, 1924-25, 1925-26	70
12. (XLVI) Statement showing the estimated requirements of coal by the Tata Iron and Steel Company when the plant has reached full production in 1933-34	71
13. (XLV) Statement showing the consumption of coal in the works at Jamshedpur from 1923-24 to 1925-26	71
14. (XLVII) Statement showing the total quantity of coal purchased in each year from outside collieries under contract and the average price per ton f.o.r. colliery for the years 1923-24, 1924-25, 1925-26	72
15. (XLIX) Statements showing the total cost of the Greater Extensions at the end of the year 1925-26—	
(a) Distribution of Greater Extensions capital expenditure	72
(b) Statement of capital expenditure completed on Greater Extensions	72

No.	Page.
16. (LII) Comparison of Works cost for the years 1923-24 and 1924-25 with the estimated cost given to the Tariff Board in 1923—Evans Coppee ovens	74
17. (LII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Koppers Ovens	75
18. (LII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Wilputte Ovens	76
19. (LIII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Sulphuric Acid	77
20. (LIV) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Sulphate of Ammonia	78
21. (LV) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Board in 1923—Coal tar	79
22. (LVI) Comparison of Works cost for the years 1923-24, 1925-26 with the estimated cost given to the Tariff Board in 1923—Pig iron average cost	80
23. (LVII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Steel ingots, stationery O. H. furnaces	81
24. (LVII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Bessemer converter blown-metal	82
25. (LVII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Duplex plant ingots	83
26. (LVIII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Old blooming mill	84
27. (LVIII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—New blooming mills	85
28. (LIX) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Old 28" Rail mill	86
29. (LIX) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—28" New rail mill	87
30. (LX) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—24" and 18" mills	88

No.	PAGE.
31. (LXI) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Old bar mill	89
32. (LXI) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Merchant mill	90
33. (LXII) Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Plate mill	91
34. (LXIII) Comparison of Works cost for the years 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Sheet mill (black sheet)	92
35. (LXIII) Comparison of Works cost for the years 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923—Galvanized corrugated sheets	93
36. (LXIV) Statement showing the cost of the blast furnaces for the years 1921-22, 1922-23, 1923-24, 1924-25 and 1925-26	94
37. (LXV) Statement showing the costs of the open hearth department for the years 1921-22, 1922-23, 1923-24, 1924-25 and 1925-26	95
38. Statement showing the costs of the Bessemer Convertors (blown metal) for the years 1923-24, 1924-25 and 1925-26	96
39. Statement showing the costs of the Duplex Plant ingots for the years 1922-23, 1923-24, 1924-25 and 1925-26	97
40. (LXVI) Statement showing the costs of the old Blooming Mill for the years 1921-22, 1922-23, 1923-24, 1924-25 and 1925-26	98
41. Statement showing the cost of the Sheet Bar and Billet Mill for the years 1923-24, 1924-25 and 1925-26	99
42. Statement showing the cost of the New Blooming Mill for the years 1923-24, 1924-25 and 1925-26	100
43. (LXVII) Statement showing the cost of the old 28" Mill for the years 1921-22, 1922-23, 1923-24, 1924-25 and 1925-26	101
44. Statement showing the cost of the New Rail Mill for the years 1924-25 and 1925-26	102
45. (LXVIII) Statement showing the costs of the Old Bar Mill for the years 1921-22, 1922-23, 1923-24, 1924-25 and 1925-26	103
46. Statement showing the costs of the Merchant Mill for the years 1924-25 and 1925-26	104
47. Statement showing the costs of the Plate Mill for the years 1922-23, 1923-24, 1924-25 and 1925-26	105

No.	PAGE.
48. Statement showing the costs of the Sheet Mill (Black Sheet) for the years 1924-25 and 1925-26	106
49. Statement showing the costs of the Sheet Mill (Plain Galvanized Sheets) for the years 1924-25 and 1925-26	107
50. Statement showing the costs of the Sheet Mill (Corrugated Galvanized Sheets) for the years 1924-25 and 1925-26	108
51. Statement showing the costs of the Sleeper Press for the year 1925-26	109
52. (LXIX) Statement showing the prices of raw materials charged in the Cost Sheets	109
53. Statement showing the value of all imported stores and electrical stores purchased during the years 1922-23 to 1925-26	110
54. (XCV) Statement showing the consumption of stores, etc., during the year 1925-26	111
55. (XCVI) Statement showing detailed analysis of the ores, coal, coke, dolomite and limestone and also of the ash of the coke used by the Steel Company	112
56. (XCIX) Statement showing dividends paid to different classes of shareholder	114
57. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Coke Ovens	115
58. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Blast Furnaces	115
59. (CIII) Statement showing number of covenanted and uncovenanted employees Direct—Open Hearth	115
60. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Duplex Plant (including Bessemer convertors)	116
61. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Open Hearth and Duplex Plant	116
62. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Old Blooming Mill	116
63. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—New Blooming Mill	117
64. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Old Rail Mill	117
65. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—New Rail Mill	117
66. (CIII) Statement showing number of covenanted and uncovenanted employees (Direct)—Bar Mills	118

No.	Page.
67. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Merchant Mill . . .	118
68. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Plate Mill . . .	118
69. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Sheet Bar and Billet Mill	119
70. (CIII) Statement showing number of covenanted and uncovenanted employees (direct)—Sheet Mill	119
71. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Coke Ovens	119
72. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Blast Furnace	120
73. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Open Hearth	120
74. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Duplex plant	121
75. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Open Hearth and Duplex plant	121
76. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Old Blooming mill	122
77. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—New Blooming mill	122
78. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Old Rail mill	123
79. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—New Rail Mill	123
80. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Bar Mills	124
81. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Merchant Mill	124
82. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Plate Mill	125

No.	Page.
83. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Sheet Mill	125
84. (CIII) Statement showing number of covenanted and uncovenanted employees (direct and indirect)—Sheet Bar and Billet Mill	126
85. Statement showing the orders booked for each month from June 1925 to March 1926—Heavy Structural	127
86. Statement showing orders booked for each month from June 1925 to March 1926—Light Structural	129
87. Statement showing the orders booked for each month from June 1925 to March 1926—Bars	131
88. Statement showing orders booked for each month from June 1925 to March 1926—Large Circular Plates	133
89. Statement showing orders booked for each month from June 1925 to March 1926—Small Circular Plates	134
90. Statement showing orders booked for each month from June 1925 to March 1926—Plates	135
91. Statement showing orders booked for each month from June 1925 to March 1926—Black sheets	137
92. Statement showing orders booked for each month from June 1925 to March 1926—Galvanised Sheets Plain	139
93. Statement showing orders booked for each month from June 1925 to March 1926—Galvanised Corrugated iron sheets	141
94. Statement showing orders booked for each month from June 1925 to March 1926—Heavy Rails—First class	143
95. Statement showing orders booked for each month from June 1925 to March 1926—Second class rails	144
96. Statement showing orders booked for each month from June 1925 to March 1926—Fish plates	145
97. Statement showing orders booked for each month from June 1925 to March 1926—Light Rails	146
98. Statement of orders booked from June 1925 to March 1926—Tin Bars	147
99. Statement showing total orders booked from June 1925 to March 1926—Heavy Structural	148
100. Statement showing total orders booked from June 1925 to March 1926—Light Structural	149
101. Statement showing total orders booked from June 1925 to March 1926—Bars	150
102. Statement showing total orders booked from June 1925 to March 1926—Plates	151

No.	Page.
103. Statement showing total orders booked from June 1925 to March 1926—Black Sheet	152
104. Statement showing total orders booked from June 1925 to March 1926—Galvanised Plain Sheets	153
105. Statement showing total orders booked from June 1925 to March 1926—Galvanised Corrugated Sheets	154
106. Statement showing total orders booked from June 1925 to March 1926—Galvanized sheets (Plain and Corrugated combined)	155
107. Statement showing c.i.f. prices from May 1925 to April 1926	156
108. Notes on the Jamshedpur Technical Institute	158
Enclosure (1) Statement showing the designation and work of the students who were recruited in 1921 for Metallurgical apprenticeship and completed the course	159
Enclosure (2) Statement showing designation and work of the students who were recruited in 1922 as Metallurgical apprentices and completed the course	160
Enclosure (3) Statement showing working position of 3rd year men who will complete their apprenticeship on 31st October, 1926	161
Enclosure (4) Statement showing the allotment of Technical Institute men to the various department in the Tata Iron and Steel Company's Works	162
Enclosure (5) Provincial List	163

No. 1.

Statement showing Conversion Cost (No. XII).

	1923-24.		1924-25.		1925-26.	
	Rs.	Per cent.	Rs.	Per cent.	Rs.	Per cent.
Pig and Scrap Cost	49.27	28.9	48.17	30.9	44.10	32.22
Conversion to Ingots	67.96	39.88	62.69	40.20	55.11	40.26
Conversion to Blooms	14.92	8.75	13.46	8.63	9.46	6.91
Conversion to Rails	38.31	20.47	31.63	20.28	28.22	20.61
Total Cost of Rails	170.46	100.00	155.95	100.00	136.89	100.00

N.B.—Credit of Scrap taken in Pig Iron and Scrap. Credit for Second Class rail for sale is distributed over all items.

N.B.—The number given in brackets is the number of the corresponding statement in Volume I of the evidence recorded in the first Enquiry regarding the grant of protection to the Steel Industry.

No. 2.

Statement showing the dates on which the Greater Extensions units came into Operation (No. XIII)

Wilputte Coke Ovens:—

1st Battery	10th August 1922.
2nd "	15th March 1923.
3rd "	6th January 1924.

Blast Furnaces:—

D Blast Furnace	6th December 1922.
C " "	15th January 1924.
Bate's "	27th August 1919.

Duplex Plant:—

No. 1 O. H. Tilting Furnace as ordinary O. H.	15th February 1923.
No. 2 O. H. Tilting Furnace as ordinary O. H.	30th January 1924.
No. 1 Converters	13th March 1924.
No. 2 "	13th February 1924.
New Blooming Mill	29th October 1923.
Sheet Bar and Billet Mill	21st January 1924.
New Rail Mill	12th May 1921.
New Merchant Mill	2nd June 1924.
Plate Mill	10th January 1923.
Sheet Mill	17th September 1924.
Sleeper Press	24th February 1925.

No. 3.

Statement showing the Output of Iron and Steel for 1925-26 (No. XV).

	Tons.	Tons.
Pig Iron . . . . .	...	573,196
Ferro Manganese . . . . .	...	7,302
Steel Ingots . . . . .	...	470,557
Blooms, Slabs and Billets . . . . .	...	408,815
New 28" Mill	94,235	...
Old 28" Mill	44,734	...
Plate Mill	20,871	...
Merchant Bar Mill	60,163	...
Old Bar Mills	28,019	...
Sheet Mills: Black Sheets	16,552	...
„ „ Galvanized Sheets	12,681	...
Sheet Bars (Tin Bars)	40,380	...
Steel Sleepers	1,773	...
Blooms and Billets for Sale	519	319,957

No. 4.

Statement showing expected Output when Plant has reached full production in 1933-34 (No. XV).

	Tons.
Coke	900,000
Pig Iron	800,000
Ferro Manganese	10,000
Steel Ingots	780,000
Blooms, Slabs and Billets	663,000
New 28" Mill	260,000
Old 28" Mill . . . . .	...
Plate Mill	25,000
Merchant Bar Mill	120,000
Old Bar Mills	25,000
Sheet Mills	55,000
Sheet Bar	50,000
Steel Sleepers	25,000
TOTAL FINISHED STEEL	560,000

No. 5.

Statement showing Works cost per ton of Steel for the years 1923-24, 1924-25, 1925-26 (No. XX).

	1923-24.	1924-25.	1925-26.
	Rs.	Rs.	Rs.
Open Hearth Ingots	68.64	60.57	55.52
Duplex Plant Ingots	82.08	70.81	58.84
Old Blooming Mill	85.77	77.02	73.24
New " "	93.96	85.45	68.36
Old 28" Mill	120.93	110.30	112.99*
New Rail Mill . . . . .	...	113.24	96.02
Old Bar Mills	132.55	123.27	125.19*
New Bar Mills . . . . .	...	134.12	104.59
Plate Mill	142.13	145.76	124.33
Sheet Bar and Billet Mill	115.84	96.09	77.76
Black Sheets . . . . .	...	203.90	181.16
Galvanized Plain Sheets . . . . .	...	332.09	298.88
Galvanized Corrugated Sheets . . . . .	...	357.48	314.19
Sleepers . . . . .	...	...	119.42

*Increase in cost due to lower production (the work being transferred to the New Mills.

No. 6.

PIG IRON.

Statements of Contracts for five years and over entered into by The Tata Iron and Steel Co., Ltd., for the sale of Pig Iron No. XXII.

Name of the Party.	Period of Contract.	Quantity to be supplied.	Price per ton according to Contract f. o. r. Tatanagar.	Wholesale Market price per ton when Contract made.	Quantity supplied in 1925-26.	Wholesale Market price per ton in 1925-26, f. o. r. Tatanagar.
1. Kumardhubi Engineering Works.	10 years from 1st January 1917 to 31st December 1926.	All requirements minimum 1,000 tons annually.	Rs. A. P. 50 0 0	Rs. A. P. 65 0 0	Tons. 1,513	Rs. A. P. 47 0 0 For nine months. 63 0 0 For three months. Do.
2. Andrew Yule & Co. . . .	10 years from 1st December 1926 to 30th November 1926.	All requirements at current rate 2,000 tons for rest years. Total for 10 years 16,100 tons.	53 0 0	65 0 0	307	Do.
3. Empire Engineering Co. . .	10 years from 1st March 1916 to 28th February 1926.	All requirements estimated at 500 tons a year, but no minimum.	57 0 0	60 0 0	60	Do.
4. B. N. Railway	10 years from 1st December 1916 to 30th November 1926.	All requirements approximately 360 tons annually for 10 years 3,600 tons.	50 0 0	65 0 0	1,228	Do.
5. O. & E. Railway	10 years from 1st February 1917 to 31st January 1927.	All requirements approximately 3,000 tons annually 30,000 tons for 10 years.	49 0 0	65 0 0	650	Do.
6. N. W. Railway	10 years from 1st January 1920 to 31st December 1929.	All requirements approximately 9,000 tons annually 90,000 tons for 10 years.	58 0 0	85 0 0	Nil	Do.
7. Kobe Steel Works	6 years from 1st January 1919 to 31st December 1924.	Total for 6 years 129,560 tons .	Average of Contract price 83-0-0	85 0 0	15,868 at 75 per ton.	35 0 0

No. 7.

Statement showing the Orders for Rails for 1926-27 (No. XXIII).

	Rails	Fishplates.	F. O. B. Tata	F. O. B. Tata
	Tons.	Tons.	Price for Rails. Rs.	Price for Fishplates Rs.
Railway Board	86,678	3,650	130	160
N. G. S. Railway	11,445	326	105	175
B. & N. W. Railway	4,800	180	105	155
B. B. & C. I. Railway	17,745	791	105	155
TOTAL	120,168	4,947	...	...

No. 8.

Statement of Contracts for five years and over entered into by The Tata Iron and Steel Company, Limited, for the purchase of Coal No. XXIV.

Name of the party from whom purchased.	Period of contract.	Quantity to be supplied.	Price per ton according to contract f. o. r. Mines. :	Market price per ton for similar Coal at the time when contract was made.	Tonnage supplied during 1925-26.	Price per ton for 1925-26 according to the contract f. o. r. Mines.	Market price for 1925-26.
1	2	3	4	5	6	7	8
Raneegunge Coal Association Limited.	25 years from 1st April 1920 to 31st March 1945.	All output of 12, 13 and 15 Seams to Kustore and Alkusa Collieries about 180-240,000 (45-60,00,000).	Railway Board price plus 8 As. with a minimum of Rs. 3-12 (Rs. 4).	Rs. A. P. 4 8 0	230,807	Rs. A. P. 9 4 0	Rs. 5-to 6-8
Messrs. Andrew Yule & Company.	25 years from 1st April 1921 to 31st March 1946.	All output of 12 and 14 Seams of Ena, and 12, 14 and 15 Seams of Bhujudih Collieries about 132-288,000 (33-72,00,000).	Ditto.	4 8 0	170,079	8 0 0	Do.
Messrs. Bird & Company.	25 years from 1st January 1921 to 31st December 1945.	240,000 (6,000,000) . . .	Railway Board price, with a minimum of Rs. 3-12 (Rs. 3-12).	4 8 0	243,229	7 8 0 from January to December 1925.	Do.
Messrs. McLeod & Company.	Till Exhaustion of Output from 30th January 1919.	All output of Gopalichuck and Bansjorah Collieries about 120,000 (3,000,000). Nearly half the total output is second class which is not consumed at Jamshedpur and therefore not included in the column.	Railway Board price (Rs. 3-8).	4 8 0 Price from the Capital for the month of December 1919.	268,619	7 8 0 for 1st Class and 4 4 0 for second Class for 1925.	5 - to 6-8 3 - to 4-8

No. 9.

Statement of Contracts for five years and over for the purchase of Raw Materials (No. XXV.)

(Dolomite, Limestone, Manganese Ore, Bricks.)

No.	1 Name of Party from whom purchased.	0 Period of Contract.	3 Name of Material.	4 Quantity to be purchased.	5 Price according to Contract.	6 Wholesale Market Price when contract was made.	7 Quantity purchased in 1925-26.	8 Wholesale Market Price in 1925-26.
1	Messrs. B. P. Byramji & Co.	10 years from 1st July 1921.	Dolomite.	36,000 minimum 60,000 maximum per year.	Rs. 3 per ton loaded into Wagons on the Railway.	...	Tons. 44,813	...
2	The Bisra Stone Lime Co., Ltd.	25 years from 1st Oct. 1923 to 30th Sept. 1948	Limestone	25,000 tons per annum.	Rs. 4 per ton f.o.r Railway Wagon.	...	46,204	...
3	Do.	.....	Dolomite	24,000 tons 1st year. 100,200 tons per year thereafter. Total 24,28,800 tons.	Rs. 3 per ton f.o.r Railway Wagon.	...	97,960	...
4	The Central Provinces Prospecting Synd.	10 years from 1st Jan. 1924 to 31st Dec. 1933.	Manganese Ore.	25,000 to 40,000 tons per year. Total 250,000 to 400,000 tons.	Rs. 11-0-0 per ton at the Mines	...	25,030	...
5	The Reliance Fire-Brick & Pottery Co., Ltd.	10 years from 1st Jan. 1920 to 31st Dec. 1929.	Firebricks	Estimated at 48 lacs Bricks annually. Total about 480 lacs Bricks.	Rs. 75 per thousand bricks f.o.r Chauth maximum. Rs. 50 per thousand bricks minimum. Variation on the Basis of Pig Iron Quotations in England.	...	Nos. 3,014,056	...

* Quantity in excess of 2,100 tons purchased in any one month is outside the Contract and from January 1st, 1926 the Price for such Excess is Rs. 3-2-0 per ton ex quarry.

No. 10.

Statement showing the average selling price per ton of Pig Iron.
(No. XXVIII).

	Export.			Local.			Average Price.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1921—22	79	10	11	105	9	6	94	8	11
1922—23	64	2	2	80	9	2	71	9	0
1923—24	61	1	8	67	3	0	63	2	4
1924—25	46	5	3	55	4	3	48	13	0
1925—26	40	5	9	47	0	11	41	13	2

No. 11.

Statement showing the average prices of coal paid by The Tata Iron
and Steel Co., Ltd., F. O. R. Colliery for the years 1923-24,
1924-25, 1925-26 (No. XXXVI.)

	Own Collieries.			Outside Collieries.			Average Price all Collieries.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Coking Coal									
1923—24	5	7	1	9	11	8	8	3	7
1924—25	5	11	10	9	15	10	8	8	6
1925—26	5	0	6	7	6	6	6	10	1
Steam Coal									
1923—24	5	7	1	9	11	8	8	3	7
1924—25	5	11	10	9	15	10	8	8	6
1925—26	5	0	6	7	6	6	6	10	1
Gas Coal									
1923—24	6	4	4	11	16	11	9	10	10
1924—25	7	2	3	10	15	10	9	14	7
1925—26	5	9	2	8	9	3	8	3	3

No. 12.

Statement showing the Estimated Requirements of Coal by The Tata Iron and Steel Company when the Plant has reached full production in 1933-34. (No. XLVI.)

1,250,000 tons per year	.	.	.	.	.	Coking Coal.
300,000 " "	.	.	.	.	.	Gas Coal.
300,000 " "	.	.	.	.	.	Steam Coal.

No. 13.

Statement showing the consumption of Coal in the Works at Jamshedpur from 1923-24 to 1925-26. (No. XLV.)

	Coking.	Gas.	Steam.	Miscellaneous.	Total Coal used.
	Tons.	Tons.	Tons.	Tons.	Tons.
1923-24 . . .	849,757	180,825	152,005	42,535	1,225,122
1924-25 . . .	1,018,054	203,346	250,791	39,092	1,511,283
1925-26 . . .	952,301	207,600	303,772	52,467	1,516,140

No. 14.

Statement showing the total quantity of Coal purchased in each year from outside Collieries under Contract and the average price per ton F. O. R. Colliery for the years 1923-24, 1924-25, 1925-26. (No. XLVII).

Year.	Quantity.	Average price per ton F. O. R. Colliery.
	Tons.	Rs. A. P.
April 1923 to March 1924	801,346	9 14 4
„ 1924 „ „ 1925	1,004,895	10 2 2
„ 1925 „ „ 1926	1,130,438	7 9 7

No. 15.

Statement showing the total cost of the Greater Extensions at the end of the year 1925-26. (No. XLIX).

(a) Distribution of Greater Extensions Capital Expenditure.

	Rs.	A.	P.
1. Plant and Machinery, Building and Foundation for Housing Plant, etc., at Jamshedpur	12,82,23,793	14	5
2. Water System and Drainage	51,03,808	10	8
3. Machinery and Plants at Mines & Quarries	23,62,949	12	11
4. Building at Jamshedpur	20,22,542	3	9
5. Building at Mines	2,48,192	14	2
6. Other Expenditure to be distributed after Construction is over	Amount distributed to above items.		
7. Interest to be distributed after Construction is over	39,97,000	0	0
Total	14,20,48,287	7	11

(b) Statement of Capital Expenditure completed on Greater Extensions.

	Rs.	A. P.
Blast Furnaces C. & D.	1,58,36,671	6 10
Sheet Bar & Billet Mill	50,54,584	14 4
Bolt and Nut Shop	1,40,356	1 8
Coke Plant	1,22,65,320	0 0
Converter and Mixer Plant	36,89,724	12 4
Rajgangpur Dolomite Quarries	6,63,916	11 11
Drainage	7,60,997	9 5
Electric Furnaces	2,68,915	5 0
Electric Power	70,56,841	14 3
Forge Shop	95,711	15 9
General Foundry	1,14,271	8 9
Gorumahisani Iron Ore Mines	3,37,538	8 0
Coke Ovens Gas Mains	3,21,909	1 9
Merchant Mill	45,95,500	4 7
Duplex Plant	1,56,28,435	6 8
Pig Casting Machine	5,48,565	8 6
Plate Mill	68,33,209	3 9
Roll Shop	6,22,990	11 0
Rolling Stock	33,37,988	7 4
Machine Shop No. 2	35,42,284	2 1
Sheet Mill	73,83,799	5 8
Sleeper Press	4,43,389	8 4
Structural Shop	7,60,007	7 8
Steam Mains	2,13,416	15 0
Stockyard & Covered Bar Storage for Mills	8,73,614	11 1
Track System	31,50,119	3 2
Water System	44,42,811	1 3
Boiler Plant No. 5	88,620	15 5
Sulphuric Acid Plant	4,68,178	15 11
Batelle Furnace	42,59,353	8 5
Boiler Plant No. 4	39,70,801	8 6
Blooming Mill	2,43,15,135	5 2
Sulphuric Acid Plant No. 2 Extensions	6,09,722	8 6
Badampahar Iron Ore Mines	8,49,929	6 1
No. 2 K. Lease Dolomite Quarries	2,25,712	14 0
Noamundi Iron Ore Mines	3,21,065	13 0
Refrigerating Plant	1,46,783	8 10
Sulaipat Iron Ore Mines	2,71,899	14 3
Gonadi Dolomite Quarries	1,581	7 10
Drag Ovens	8,25,301	2 5
Fire Brick Plant	17,064	8 0
Soaking Pit Extensions	2,54,919	1 8
Machine Shop No. 1 Extensions	92,649	15 3
Office & Administrative Buildings	20,22,542	3 9
New Pig Iron Yard	71,684	12 10
Interest	39,97,000	0 0
Total Rs.	14,20,48,287	7 11

No. 16.

Comparison of Works Cost for the years 1923-24 and 1924-25 with the estimated cost given to the Tariff Board in 1923 (No. LII.)

EVANS COPPER OVENS.

	Estimated cost given to the Tariff Board in 1923. Statement No. LII of 1924 Report.	1923-24.	1924-25.
Total Production	Tons. 186,200	139,041	73,886
Average per month	„ 15,517	11,587	11,367
Yield	Per cent. 72.89	71.17	70.06
Cost of Coal	Rs. 8- 0-0	9-58	10-10
Labour	„ 1- 7-0	1- 9-76	1- 8-48
Cost of Coal per ton of Coke	„ 10-15.6	13- 7-20	14- 6-72
Stores, Tools and Supplies	„ 0- 8-0	0- 7-52	0- 6-24
Steam . . . . .	„ ...	...	...
Service & Expense	„ 1- 5-5	1- 4-00	1- 1-92
Total	Rs. 14- 4-1	16-12-48	17- 7-36

Notes.— In 1923-24 the number of Ovens in operation was 158 against 180. In 1924-25 the number of Ovens in operation was 145. These Ovens were shut down on 13th October 1924.

No. 17.

Comparison of Works Cost for the years 1923-1924, 1924-1925 and 1925-1926 with the estimated cost given to the Tariff Board in 1923 (No. LII).

KOPPERS OVENS.

	Estimated cost given to the Tariff Board in 1923, Statement No. LII of 1924 Report.	1923-1924.	1924-1925.	1925-1926.
Total Production	Tons 125,000	114,331	125,067	132,122
Average per month	" 10,417	9,528	10,422	11,010
Yield	Per cent 73.88	72.44	71.75	72.87
Cost of Coal	Rs. 8- 0-0	9.53	9.95	8.15.
Cost of Coal per ton of coke	" 10-13.2	13- 2.56	13-13.92	11- 2.88.
Labour	" 1- 8-0	1-11.36	1- 5.60	1- 6.72.
Stores, Tools and Supplies	" 0- 5.6	0- 6.08	0- 4.48	0- 5.12.
Steam . . . . .	" ...	...	...	...
Service Expense	" 1- 2.5	1- 2.40	1- 0.32	0-14.56.
Gross Cost	Rs. 13-13.3	16- 6.40	16- 8.32	13-13.28
DEDUCT PROFIT OF BYE-PRODUCTS.				
Gas	Rs. 0- 4.5	0- 5.05	0- 4.61	0- 4.96.
Coal Tar	" 0- 6.5	0- 4.83	0- 6.96	0- 7.27.
Sulphate	" 0- 8.2	1- 3.26	0-13.07	0- 8.09.
TOTAL CREDITS	Rs. 1- 3.2	1-12.64	1- 8.64	1- 4.32.
NET COST	Rs. 12-10.1	14- 9.76	14-15.68	12- 8.96

No. 18.

Comparison of Works Cost for the years 1923-1924, 1924-1925 and 1925-1926 with the estimated cost given to the Tariff Board in 1923 (No. LII.)

WILPUTTE OVENS.

	Estimated cost given to the Tariff Board in 1923. Statement No. LII of 1924 Report.	1923-1924.	1924-1925.	1925-1926.
Total Production	Tons. 467,300	358,792	529,921	561,943
Average per month.	" 38,942	29,899	44,160	46,829
Yield	Per cent 73.88	72.26	71.78	72.39
Cost of Coal	Rs. 8- 0.0	9.58	9.96	8.13
Cost of Coal per ton of Coke	" 10-13.2	13- 4.16	13-13.92	11- 2.40
Labour	" 1- 0.0	1- 6.56	1- 0.00	1- 0.64
Stores, Tools and Supplies	" 0- 8.0	0- 8.80	0- 6.24	0- 5.44
Steam . . . . .	" ...	...	0- 0.16	0- 0.16
Service Expense	" 0- 9.0	0-12.16	0-10.72	0-11.20
GROSS COST	Rs. 12-14.2	15-15.68	15-15.04	13- 3.84
DEDUCT PROFIT OF BYE-PRODUCTS.				
Gas	Rs. 0- 4.5	...	0- 4.90	0- 5.12
Coal Tar	" 0- 6.5	0- 7.36	0-10.14	0- 9.97
Sulphate	" 0- 8.2	0-12.32	0-14.56	0-11.47
TOTAL CREDIT	Rs. 1- 3.2	1- 3.68	1-13.60	1-10.56
NET COST	Rs. 11-11.0	14-12.00	14- 1.44	11- 9.28
AVERAGE COST OF COKE PER TON	Rs. 12-4.53	15.19	14.58	11.76

N.B.—The number of Ovens in operation in 1923-24 was 113 against 150 and in 1924-25, 150 against 150.

No. 19.

Comparison of Works Cost for the years 1923-24, 1924-25 & 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LIII).

Sulphuric Acid.

	Estimated cost given to the Tariff Board in 1923. Statement No. LIII of 1924 Report.	1923-24.	1924-25.	1925-26.
Total Production	Tons. 16,000	5,406	10,605	14,736
Average per month	„ 1,333	450	884	1,228
Cost per ton Sulphur	Rs. 192-12-0	136-1-83	100-13-33	97-13-75
„ „ „ Nitrate of Soda	„ 353-6-0	245-6-00	235-6-83	204-1-08
Sulphur	„ 56-11-0	87-10-24	24-9-76	23-7-52
Nitrate of Soda	„ 6-12-7	3-8-00	3-4-16	1-14-72
Labour	„ 6-8-9	6-10-56	4-5-44	4-0-96
Stores, Tools and Supplies	„ 7-12-9	7-4-16	2-14-72	2-9-76
Service cost	„ 3-6-6	2-10-72	1-11-84	1-10-88
Total	Rs. 79-15-1	57-11-68	36-13-92	33-11-84

Note :—The new Plant came into operation on 19-9-1924.

No. 20.

Comparison of Works Cost for the years 1923-24, 1924-25 & 1925-26 with the estimated cost given to the Tariff Board in 1923. (No LIV).

SULPHATE OF AMMONIA.

	Estimated cost given to Tariff Board in 1923. Statement No. LIV of 1924 Report.	1923-24.	1924-25.	1925-26.
Total Production	Tons. 8,000	4,693	7,770	8,314
Average per month	" 667	391	617	693
Sulphuric Acid	Rs. 98-14-2	74-12-60	45-2-52	41-3-68
Lime	" 0-9-4	0-12-20	0-5-50	0-4-80
Bags	" 9-11-1	10-10-72	14-11-90	14-1-12
Labour	" 7-8-1	7-6-90	4-7-42	4-14-08
Tools & Supplies	" 2-8-6	6-7-00	3-13-82	3-9-44
Steam	" 1-14-1	5-4-02	4-13-80	6-6-08
Service Expense	" 5-11-0	5-9-92	4-13-20	5-8-16
Average cost per ton	Rs. 126-15-5	110-15-36	78-4-16	75-15-36

No. 21.

Comparison of Works Cost for the years 1923-24, 1924-25 & 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LV).

COAL TAR.

	Estimated cost given to the Tariff Board in 1923. Statement No. LV of 1924 Report.	1923-24.	1924-25.	1925-26.
Production	Tons. 18,000	15,668	20,867	21,621
Average per month . . .	... 1,500	1,305	1,379	1,802
Labour	Rs. 2- 8-8	2- 8-60	1- 2-90	1-15-52
Tools & Supplies	„ 1- 8-8	1- 3-72	1- 2-28	1- 5-92
Steam	„ 0- 4-4	0-12-60	0-14-48	1- 3-68
Service Expenses	„ 1- 7-0	0-14-60	0-15-14	1- 1-76
Average cost per ton . . .	Rs. 5-13-0	5- 7-52	4-12-80	5-10-88

No. 22.

Comparison of Works Cost for the years 1923-24, 1924-25 & 1925-1926 with the estimated cost given to the Tariff Board in 1923 (No. LVI.)

PIG IRON AVERAGE COST.

	Estimated cost submitted to the Tariff Board in 1923 Statement No. LVI of 1924 Report.	1923-24.	1924-25.	1925-26.
Total Production excluding Ferro	Tons 610,200	442,571	552,691	573,136
Average per month	" 50,850	36,881	46,057	47,766
Cost of Iron Ore	Rs. 3-50	3-541	3-592	3-383
" Manganese	" 17-10	15-1300	16-125	16-425
" Coke	" 12-725	15-325	14-1066	11-1466
" Dolomite	" 5-000	4-1575	4-958	4-1066
" Limestone	" ...	6-566	5-1316	5-192
Yield	Per cent. 61.01	61.11	60.74	60.11
USED PER TON OF PIG.				
Iron Ore	Lbs. 3,596	3,547	3,543	3,564
Manganese Ore	" 69	46	41	38
Scrap	" 6	75	104	125
Coke	" 2,700	2,931	2,708	2,678
Dolomite and Limestone	" 1,500	1,506	1,366	1,363
Iron Ore	Rs. 5-51	5-464	5-528	5-240
Manganese Ore	" 0-84	0-512	0-480	0-432
Scrap	" 0-10	0-1040	0-1488	1-192
Total	" 5-145	6-416	6-896	6-864
Credit Scrap	" ...	0-688	0-752	0-656
Coke	" 15-01	19-1440	17-1184	14-400
Flux	" 3-56	3-864	3-048	2-1488
		24-42	29-432	23-496
Labour	" 2-40	2-800	1-1584	1-1504
Tools and Supplies	" 0-120	1-272	0-1488	0-1248
Refractories	" 0-30	0-240	0-208	0-160
Steam	" 1-80	1-800	1-960	1-1088
Service Expenses	" 2-00	1-1440	1-1008	1-880
Relining	" 0-120	0-1200	0-1040	0-592
		31-112	33-1264	29-1168
Gas Credit	" 0-120	0-1536	1-096	1-400
Average cost per ton	" 30-152	36-448	32-1168	28-768

No. 23.

Comparison of Works Cost for the years 1923-24, 1924-25 & 1925-26 with the estimated cost given to the Tariff Board in 1923. (No. LVII).

STEEL INGOTS STATIONERY O. H. FURNACES.

	Estimated cost given to the Tariff Board in 1923. Statement No. LVII of 1924. Report.	1923-24.	1924-25.	1925-26.
Production Annual	Tons. 210,000	193,422	206,133	220,299
Average per month	" 17,500	16,118	17,173	18,358
Cost of Pig	Rs. 30-15-2	26- 3-12	32-13-08	28- 7-05
" Scrap	" 20- 3-2	21- 9-21	20- 6-67	20- 2-40
Gorumahisani Ore	" 3- 5-0	3- 5-33	3- 5-92	3- 3-58
Manganese Ore	" 17- 1-0	15-13-00	16- 1-50	16- 4-25
Ferro Manganese	" 121-15-0	131-15-75	118- 8-16	111- 9-66
" Silican	" 608- 8-3	431-12-66	315-11-66	345-14-75
Limestone	" 5- 7-2	6- 4-91	6- 6-97	7- 7-50
Lime	" 22- 6-5	21-13-91	22- 7-60	25- 4-83
Flourspar	" 90-10-8	100-15-25	62- 5-25	86- 6-92
Yield	Per cent. 85	85-54	84-45	84-66
Lbs. of Pig used	Lbs. 1,425	1,775	1,417	1,271
" of Scrap	" 1,167	724	1,103	1,261
Pig Iron Cost per ton	Rs. 19-11-0	28-11-04	20-12-32	16- 2-24
Scrap " " "	" 10- 8-4	6-15-52	10- 0-80	11- 5-44
	Rs. 30- 3-4	35-10-56	30-13-12	27- 7-68
Less Scrap Credit	" 1- 5-4	1- 5-12	1- 7-36	1- 3-36
Net Metal Cost	Rs. 28-14-0	34- 5-44	29- 5-76	26- 4-32
Feeding Materials	" 4- 4-7	3-15-04	3- 8-48	3-14-72
Labour	" 5- 7-2	5-10-40	5- 6-88	5- 2-88
Stores	" 2- 6-6	2- 0-96	1-12-00	2- 1-13
Refractories	" 2- 0-0	2- 4-16	2- 4-80	2- 5-76
Ingots, Moulds & Stools	" 1- 4-0	1- 8-00	1- 8-00	1- 8-00
Relining Fund	" 7- 8-0	7- 8-00	6- 2-56	4- 8-00
Gas Producers	" 5- 5-5	7-14-56	7- 6-24	6- 9-76
Service Expense	" 3-12-0	3- 7-68	3- 2-40	3- 1-76
Average cost per ton of Ingots	Rs. 60-14-0	68-10-24	60- 9-12	55- 8-32

No. 24.

Comparison of Works Cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LVII.)

BESSEMER CONVERTER BLOWN-METAL.

	Estimated cost given to the Tariff Board in 1923. Statement LVII of 1924. Report.	1923-24.	1924-25.	1925-26.
Pig used	Lbs. 2,503	2,680	2,508	2,456
Scrap used . . . . .	" ...	...	12	4
Scrap produced per ton	" 63	161	88	69
Pig Cost	Rs. 30-15-2	34- 7-20	32- 2-92	28- 7-44
Scrap Cost . . . . .	" ...	...	20- 0-00	20- 0-00
Cost of Pig Iron	" 34- 9-3	41- 3-52	36- 0-32	31- 3-36
Cost of Scrap . . . . .	" ...	...	0- 1-76	0-0-64
Gross Metal Cost	Rs. 34- 9-3	41- 3-52	36- 2-08	31-4-00
Less Scrap	" 0- 9-0	1- 7-04	0-12-48	0-9-76
Net Metal Cost	Rs. 34- 0-3	39-12-48	35- 5-60	30-10-24
Feeding Materials	Rs. ...	...	...	...
Labour	" 0-14-1	2-12-64	2- 2-56	1-8-16
Stores	" 1-11-5	1-10-72	0-10-08	0-7-04
Refractories	" 1- 3-4	2- 6-40	1-9-28	1-3-84
Ingots, Moulds and Stools . . . . .	" ...	...	...	...
Relining Fund . . . . .	" ...	...	...	...
Blowing Metal	" 0-13-7	...	...	...
Service Expense	" 1- 2-3	0-11-36	1- 3-52	1-3-52
Average cost per ton of Blown-Metal.	" 39-13-3	47-5-60	40-15-04	35-0-80

No. 25.

Comparison of Works Cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board 1923. (No. LVII).

DUPLEX PLANT INGOTS.

	Estimated cost given to the Tariff Board in 1923. Statement LVII of 1924 Report.	1923-24.	1924-25.	1925-26.
Pig used	lbs. ...	2,102	100	30
Blown-Metal used	" 2,358	444	2,415	2,466
Scrap used	" ...	56	13	5
Scrap Produced	" 71	218	166	128
Blown-Metal Cost	Rs. 39-13·3	47- 5·58	40-15·08	35- 0·83
Pig Iron Cost	" ...	36- 2·71	34- 2·49	28-11·98
Blown-Metal Cost per ton	" 41-14·9	9- 6·24	44- 2·88	38- 9·28
Pig Iron " " "	" ...	33-15·20	1- 8·32	0- 6·08
Scrap " " "	" ...	0- 8·64	0- 1·92	0- 0·80
	Rs. 41-14·9	43-14·08	45-12·32	39- 0·16
Less Scrap	" 0-10·1	1-15·04	1- 7·84	1- 2·24
Net Metal Cost	Rs. 41- 4·8	41-15·04	44- 4·48	37-13·92
Feeding Materials	" 3- 8·2	5- 9·60	4-14·08	4- 3·36
Labour	" 1- 0·8	7- 3·84	3-12·32	2-12·00
Stores	" 1- 5·9	3-13·28	1-11·84	1- 2·72
Refractories	" 1-13·1	1-12·32	1- 7·84	1- 5·28
Ingots, Moulds and Stools	" 1- 4·0	1- 8·00	1-13·76	2- 0·00
Relining Fund	" 2- 4·0	7- 8·00	6- 0·32	4- 8·00
Gas Producers	" 2- 9·4	9- 4·64	4- 9·44	2-13·96
Service Expense	" 1-15·6	3-6·56	2- 2·88	2- 3·20
Average cost per ton of Ingots	Rs. 57- 1·8	82- 1·28	70-12·96	58-13·44
Average cost of all Ingots	Rs. 58- 8·0	71- 0·32	65- 1·76	57- 4·62

No. 26.

Comparison of Works Cost for the years 1923-24, 1924-25 & 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LVIII).

OLD BLOOMING MILL.

	Estimated cost given to the Tariff Board in 1923. Statement No. LVIII of 1924 Report.	1923-24.	1924-25.	1925-26.
Annual Production	Tons 88,300	181,540	154,059	87,825
Monthly „	„ 7,358	15,128	12,838	7,319
Yield	Per cent. 88.0	88.30	88.77	87.50
Average cost of Ingots	Rs. 58- 8.0	69-14.56	61- 7.36	56- 0.37
Gross cost of Metal	„ 66- 7.7	79- 2.72	69- 3.84	64- 0.64
Less Scrap	„ 2- 0.8	1-15.52	1-14.08	2- 2.72
Net Metal cost	Rs. 64- 6.9	77- 3.20	67- 5.76	62-13.92
Labour	„ 1- 11.5	1-11.57	1-10.40	2- 1.44
Stores, Tools and Supplies	„ 1- 6.4	1- 1.60	0-13.60	1- 3.36
Steam & Electricity	„ 2- 0.0	2-14.56	4- 2.08	4- 6.08
Gas	„ 1- 4.8	1- 8.48	1-12.16	2- 8.64
Rolls	„ 0- 4.0	0- 4.00	0- 4.00	0- 4.00
Service cost	„ 1- 4.6	1- 0.96	1- 0.32	0-14.40
Average cost per ton of Blooming Mill Product	Rs. 72- 6.2	85-12.32	77- 0.92	73- 3.84

No. 27.

Comparison of Works Cost for the years 1923-24, 1924-25 & 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LVIII).

NEW BLOOMING MILLS.

	Estimated cost of Production given to Tariff Board in 1923. Statement No. LVIII of 1924 Report.	1923-24.	1924-25.	1925-26.
Annual Production	Tons. 380,800	23,700	158,901	320,990
Monthly "	" 31,733	2,644	13,241	26,749
Yield	Per cent. 88	87-71	82-94	87-04
Average cost of Ingots	Rs. 58- 8-0	79- 2-41	68- 14-08	57- 12-08
Gross cost of Metal	" 66- 7-7	90- 3-84	83- 0-80	66- 5-76
Less Scrap	" 2- 0-8	2- 1-92	3- 6-72	2- 4-64
Net Metal cost	" 64- 6-9	88- 1-92	79- 10-08	64- 1-12
Labour	" 1- 0-0	2- 4-48	1-12-80	1- 7-68
Stores, Tools & Supplies	" 0- 12-0	2- 1-12	1- 11-36	1- 0-00
Steam & Electricity	" 1-10-0	0- 8-96	0- 11-04	0- 9-76
Gas	" ...	0- 1-92	0-13-28	0- 7-20
Rolls	" 0- 4-0	0- 4-00	0- 4-00	0- 4-00
Service Cost	" 0- 12-0	0- 8-96	0- 8-64	0- 8-00
Average cost per ton of Blooming Mill Product	Rs. 68-12-9	88- 15-36	85- 7-20	68- 5-76
Average cost per ton on Old & New Blooming Mills	Rs. 69- 7-7	86- 11-56	81- 4-80	69- 6-56

No. 28.

Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LIX).

OLD 28" RAIL MILL:

	Estimated cost given to the Tariff Board in 1923. Statement No. LIX of 1924 Report.	1923-24	1924-25.	1925-26.
Annual Production	Tons. 60,000	93,121	85,943	45,253
Average per month	" 5,000	7,760	7,161	3,771
Yield	Per cent. 85.00	85.00	85.39	82.15
Average cost of Blooms	Rs. 69- 7.7	85-14.67	76-13.34	73- 3.33
Gross cost of Metal	" 81-13.5	125-11.04	101- 9.28	95- 9.60
Less Scrap and Billets	" 2- 6.4	27- 9.92	15- 1.28	10- 8.32
Net Metal Cost	Rs. 79- 7.1	98- 1.12	86- 8.00	85- 1.28
Labour	" 7-11.1	7- 8.80	7- 7.04	9- 8.64
Stores, Tools and Supplies	" 2-15.0	2- 2.72	1-13.44	2- 5.76
Steam	" 3- 2.7	5- 3.52	6-11.04	7- 1.76
Gas Producers	" 1- 2.7	1-11.04	1-12.60	2- 9.28
Rolls	" 2- 0.0	2- 4.00	2- 3.36	2- 4.00
Service cost	" 4- 8.3	3-15.68	3-13.12	4- 1.12
Total	Rs. 100-14.9	120-14.88	110- 4.80	112-15.84
Average cost per ton of Old and New Rail Mills Product	Rs. 95- 8.6	120-14.88	111- 7.04	101- 8.32

No. 29.

Comparison of Works cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LIX).

28" NEW RAIL MILL.

	Estimated cost given to Tariff Board in 1923. Statement No. LIX of 1924 Report.	1924-25.	1925-26.
Annual Production	Tons. 175,000	54,772	94,225
Average monthly Production	" 14,583	4,564	7,853
Yield	Per cent. 85.00	75.38	75.38
Average Cost of Blooms	Ra. 69- 77	83-15.00	68- 5.85
Gross cost of Metal	" 81-13.5	111- 5.76	90-12.96
Less Scrap Produced	" 2- 6.4	12- 7.36	10- 3.68
Net Metal Cost	Ra. 79- 7.1	98-14.40	80- 9.28
Labour	" 5- 2.0	4-12.64	6- 1.76
Stores, Tools and Supplies	" 1-15.0	3- 7.04	2- 2.56
Steam	" ...	0- 1.76	0- 2.56
Gas Producers	" 2- 2.7	...	0- 3.68
Rolls	" 2- 0.0	2- 4.00	2- 4.00
Service Cost	" 3- 0.2	3-12.00	4- 8.48
Average cost per ton	Ra. 93-11.0	113- 3.84	96- 0.32

No. 30.

Comparison of Works Cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LX).

24" AND 18" MILLS.

	Estimated cost given to the Tariff Board in 1923. Statement No. LX of 1924 Report.	1923-24.	1924-25.	1925-26.
Estimated annual production	Tons. 154,000	6,688	63,052	150,479
Estimated monthly production	„ 12,833	557	5,254	12,540
Yield	Per cent. 93.5	91.84	94.59	93.09
Average cost of Billets	Rs. 69-7.7	99-12.00	84-7.52	68-5.25
Gross cost of Metal	„ 74-5.0	108-9.76	89-4.80	73-6.40
Less Scrap	„ 1-0.0	1-1.92	0-8.16	0-1.44
Net Metal cost	Rs. 73-5.0	107-7.84	88-12.64	72-8.96
Labour	„ 1-8.0	2-15.20	2-1.12	1-3.52
Stores, Tools and Supplies	„ 1-4.0	1-3.36	1-3.04	0-6.56
Power	„ 3-0.0	0-6.40	0-9.92	0-9.12
Rolls	„ 1-0.0	2-4.00	2-4.00	2-4.00
Service	„ 0-12.0	1-8.64	1-2.72	0-12.00
Average cost per ton	Rs. 80-13.0	115-13.44	96-1.44	77-12.16

No. 31.

Comparison of Works Cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923 (No. LXI).

OLD BAR MILL.

	Estimated cost given to the Tariff Board in 1923. Statement LXI of 1924 Report.	1923-24.	1924-25.	1925-26.
Production	Tons. 18,000	41,206	33,799	28,019
Average per month	„ 1,500	3,433	2,816	2,335
Yield	Per cent 85	85·07	85·10	85·23
Average cost of Billets	Rs. 75-15·7	85-14·42	77-13·60	73- 9·42
Gross cost of Metal	„ 89- 6·2	100-15·84	86-15·52	86- 5·60
Less Scrap	„ 2- 6·4	2-11·20	2-10·72	2-12·32
Net Metal cost	Rs. 86-15·8	98- 4·64	84- 4·80	83- 9·28
Labour	„ 13-12·0	11- 9·92	14- 0·96	14- 7·04
Stores, Tools and Supplies	„ 6- 6·0	4- 0·48	4-12·16	4- 3·04
Steam	„ 4- 3·9	4-12·16	5-13·12	7- 2·08
Gas Producers	„ 4-10·2	4-13·76	4-12·96	5-15·68
Rolls	„ 3- 0·0	3- 4·32	4- 1·44	3- 4·00
Service charge	„ 6- 1·4	5-11·52	6- 6·88	5- 9·92
Average cost per ton	Rs. 125- 1·3	132- 8·80	123- 4·32	125- 3·04
Average cost per ton of Old and New Mills	Rs. 112- 0·8	132- 8·80	131- 5·12	111- 2·08

No. 32.

Comparison of Works Cost for the years 1923-24, 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923. (No. LXI.)

MERCHANT MILL.

		Estimated cost given to the Tariff Board in 1923. Statement No. LXI of 1924 Report.	1924-25.	1925-26.
Production	... ..	Tons 43,900	19,690	60,163
Average per month	... ..	" 3,658	1,640	5,014
Yield	... ..	Per cent. 90	83.63	86.77
Average cost of Billets	... ..	Rs. 75-15.7	94-12.96	77-14.33
Gross cost of Metal	... ..	" 84- 6.7	113- 5.92	89-12.49
Less Scrap	... ..	" 1- 6.4	3- 3.20	2- 5.76
Net Metal cost	... ..	Rs. 83- 0.3	110- 2.72	87- 6.72
Labour	... ..	" 6- 7.0	7-15.84	6- 8.96
Stores, Tools and Supplies	... ..	" 4- 8.0	4- 7.84	2- 4.00
Steam	... ..	" 2- 4.0	0- 3.68	0- 1.44
Gas Producers	... ..	" 3- 8.0	2- 9.92	1- 0.48
Rolls	... ..	" 3- 0.0	3- 3.84	3- 4.00
Service	... ..	" 4- 0.0	5- 6.08	3-15.84
Average cost per ton	... ..	Rs. 106-11.3	134- 1.92	104- 9.44

No. 33.

Comparison of Works Cost for the years 1923-24, 1924-25 & 1925-26 with the estimated cost given to the Tariff Board in 1923. (No. LXII.)

PLATE MILL.

	Estimated cost given to the Tariff Board in 1923. Statement No. LXII of 1924 Report.	1923-24.	1924-25.	1925-26.
Estimated Annual Production.	Tons. 48,000	22,267	18,285	20,871
Estimated Monthly Production.	" 4,000	1,855	1,523	1,739
Cost of Slabs ...	Ra. 69-7.7	89-12.00	88- 5.60	69-14.58
Yield	Per cent. 68.4	73.84	72.80	68.17
Gross Cost of Metal ...	Ra. 101-9.3	121-8.64	121- 5.76	102- 8.96
Less Scrap ...	" 5-9.6	6-4.32	6-10.40	8- 7.36
Net Metal Cost ...	Ra. 95-15.7	115-4.32	114-11.36	94- 1.60
Labour Cost ...	" 10- 0.2	10-7.62	12- 2.40	11- 8.00
Heating-Coke Ovens Gas.	" 1- 8.0	0-5.12	1- 8.00	2- 8.00
Power ...	" 1-12.0	1-8.64	2- 8.48	3- 4.32
Stores, Tools & Supplies.	" 3- 7.3	6-5.60	5- 6.56	5- 0.64
Rolls A/s ...	" 2- 4.0	2-4.00	2- 4.00	2- 4.00
Service Expense ...	" 5- 9.5	5 14.68	7- 3.36	5-10.72
Average cost per ton	Ra. 120- 8.6	142-2.08	145-12.16	124- 5.28

No. 34.

Comparison of Works Cost for the years 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923. (No. LXIII).

SHEET MILL (BLACK SHEET.)

	Estimated cost given to the Tariff Board in 1923. Statement No. LXIII of 1924. Report.	1924-25.	1925-26.
Estimated Annual Production ...	Tons. 36,000	5,735	28,652
" Monthly " ...	" 3,000	478	2,388
Yield ...	Per cent. 80	78.17	81.39
Sheet Bar ...	Rs. 80-13.0	86-1.12	78-6.16
Gross cost of Metal ...	" 101-0.3	110-1.76	96-4.96
Scrap ...	" 3-6.4	4-13.12	3-13.28
Net Metal Cost ...	Rs. 97-9.9	105-4.64	92-7.68
Labour ...	" 21-0.7	62-2.24	53-0.96
Heating ...	" 2-8.0	6-2.40	5-10.08
Power ...	" 5-4.0	1-9.44	1-10.40
Stores, Tools & Supplies ...	" 7-7.0	10-8.64	10-11.84
Rolls A/c ...	" 5-0.0	10-4.16	6-0.00
Service Expense ...	" 7-4.2	7-14.88	11-9.60
Annealing ...	" 3-8.0	...	...
Total cost Black Sheets ...	Rs. 149-2.8	203-14.40	181-2.56

No. 35.

Comparison of Works Cost for the years 1924-25 and 1925-26 with the estimated cost given to the Tariff Board in 1923. (No. LXIII.)

GALVANIZED CORRUGATED SHEETS.

	Estimated cost given to the Tariff Board in 1923. Statement No. LXIII of 1924 Report.	1924-1925.	1925-26.
Black Sheets per ton	Rs. 149-2-8	203-10-84	182-9-25
Spelter per lb.	" 0-3-0	625-13-17	649-4-58
Lead	" ...	663-7-34	...
Tin	" ...	3,990-0-00	4,171-0-33
Galvanized Bands	" ...	203-5-25	179-12-92
Sulphuric Acid	" 79-15- 1	36- 5-42	33-11-33
Sal Ammoniac	" ...	597-15-25	539-12-08
Annual Production	Tons ..	1,865	10,291
Monthly "	" ...	155	858
Black Sheets	Rs. 149-2-8	194-13-79	173-9-12
Spelter	" 37-2-0	91- 3-58	98-15-20
Lead, Tin, etc	" ...	4-6-66	4-10-88
Loss in Pickling	" 2-14-6	...	...
Less Scrap, etc.	" ...	10-11-75	16-13-60
Total	" ...	279-12-28	260-5-60
Sulphuric Acid	" 3-3-4	6-11-00	6-1-76
Labour & Miscellaneous	" 2-0-0	71-0-40	47-11-68
Total Cost	Rs. 194-6-8	357-7-68	314-3-04

No. 36.

Statement showing the costs of the Blasts Furnaces for the years 1921-22, 1922-23, 1923-24, 1924-25 and 1925-26.
(No. LXIV).

Particulars.	1921-22.			1922-23.			1923-24.			1924-25.			1925-26.		
	Rate.	Per ton lbs. used.	Cost per ton Rs. as.	Rate.	Per ton lbs. used.	Cost per ton Rs. as.	Rate.	Per ton lbs. used.	Cost per ton Rs. as.	Rate.	Per ton lbs. used.	Cost per ton Rs. as.	Rate.	Per ton lbs. used.	Cost per ton Rs. as.
	Rs. a. p.			Rs. a. p.			Rs. a. p.			Rs. a. p.			Rs. a. p.		
Iron Ore	2-13-0	3,598	4-8-16	3-4-8-34	3,493	5-2-24	3-5-5	3,547	5-4-64	3-5-11	3,543	5-5-29	3-3-10	3,564	5-2-40
Manganese Ore	15-13-0	86	0-7-84	14-0-7-79	55	0-5-44	15-13-0	46	0-5-13	16-1-3	41	0-4-80	16-4-3	38	0-4-32
Scrap	20-0-0	6	0-0-96	20-0-0	61	0-8-64	20-0-0	75	0-10-40	20-0-0	104	0-14-88	20-0-0	120	1-1-09
Cokes	13-10-1	2,954	17-15-52	14-11-10-83	3,088	20-5-12	15-3-4	2,981	19-14-40	14-10-8	2,708	17-11-84	11-14-8	2,673	14-4-00
Dolomite	5- 2-6	1,427	3-4-64	4-15-11-14	1,497	3-5-12	4-15-9	1,205	2-10-88	4-9-7	1,039	2-2-08	4-10-8	927	1-14-88
Limestones	...	...	...	...	...	...	6-5-8	301	0-13-76	5-13-2	347	0-14-40	5-1-11	436	1-0-00
Credit Scrap	...	...	...	20-0-0	42	0-5-92	20-0-0	48	0-6-88	20-0-0	53	0-7-52	...	...	0-6-56
Total			26-5-12			29-4-64			29-4-82			26-13-76			28-4-96
Fuel for Misc. use	...	...	3-0-16	...	...	0-0-82	...	...	0-0-16	...	...	0-0-16	...	...	...
Total Labour	...	...	2-13-00	...	...	2-14-24	...	...	2-9-00	...	...	1-15-84	...	...	1-15-04
Steam	...	...	1-12-00	...	...	2-1-44	...	...	1-9-00	...	...	1-9-60	...	...	1-10-88
Refractories (Ladle Repairs included).	...	...	0-8-20	...	...	0-4-64	...	...	0-2-40	...	...	0-2-08	...	...	0-1-60
Yard Switching	...	...	0-15-20	...	...	1-2-88	...	...	0-13-92	...	...	0-13-32	...	...	0-10-40
General Works	...	...	0-13-16	...	...	0-12-16	...	...	0-6-88	...	...	0-4-64	...	...	0-4-84
Contingent Fund	...	...	0-3-68	...	...	0-4-32	...	...	0-3-20	...	...	0-2-56	...	...	0-3-40
Belling Fund	...	...	0-12-00	...	...	0-12-00	...	...	0-12-00	...	...	0-10-40	...	...	0-5-92
Other Charges	...	...	1-8-00	...	...	2-0-16	...	...	1-2-96	...	...	1-5-44	...	...	1-3-64
Total			35-3-52			39-8-80			37-3-84			33-12-64			29-11-68
Credit Gas	...	...	0-12-00	...	...	0-12-96	...	...	0-15-36	...	...	1-0-06	...	...	1-4-00
Total			34-7-52			38-11-84			36-4-48			32-11-68			28-7-68
Yield %	...	...	61-01	...	...	62-06	...	...	61-11	...	...	60-74	...	...	60-11

No. 37.

*Statement showing the costs of the Open Hearth Dept. for the years 1921-22, 1922-23, 1923-24, 1924-25, and 1925-26.
(No. LXXV.)*

	1921-22.			1922-23.			1923-24.			1924-25.			1925-26.		
	Rate.	Per ton lbs. used.	Cost per ton.	Rate.	Per ton lbs. used.	Cost per ton.	Rate.	Per ton lbs. used.	Cost per ton.	Rate.	Per ton lbs. used.	Cost per ton.	Rate.	Per ton lbs. used.	Cost per ton.
	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
Pig	24-7'00	1,623	28-14'40	27-0'78	1,786	26-16'84	26-3'12	1,775	28-11'04	23-12'08	1,417	27-12'32	26-7'05	1,271	18-2'24
Scrap	611	5-8'98	...	802	6-2'04	21-9'31	724	6-15'52	20-6'67	1,108	10-0'80	20-2'40	1,261	11-5'44
Total	24-7'38	...	...	28-1'88	...	...	28-10'56	...	...	20-12'12	...	...	27-7'68
Credit	1-9'12	20-0'00	231	2-0'98	20-0'00	148	1-5'12	20-0'00	168	1-7'38	...	...	1-3'36
Total	22-14'24	...	...	26-1'92	...	...	24-5'44	...	...	20-5'76	...	...	26-4'32
Raw Materials	2-12'24	...	...	2-10'88	...	...	2-8'32	...	...	1-12'92	...	...	1-14'24
Total	25-10'24	...	...	28-12'80	...	...	26-12'76	...	...	21-3'08	...	...	28-1'68
Flux (a) Lime Stone	6-7-2	287	1-0'48	6-5-5'82	259	1-0'82	6-4'11	288	0-12'64	6-11'3	92	0-4'32	7-7'10	85	0-1'76
(b) Other Flux	0-12'00	...	...	1-0'48	...	...	0-10'08	...	...	1-6'24	...	...	1-14'72
Moulds and Stools	1-4'00	...	...	7-10'88	...	...	1-8'00	...	...	1-8'00	...	...	1-8'00
Fuel	6-0'64	...	...	7-14'56	...	...	7-14'56	...	...	7-0'24	...	...	6-9'76
Fuel for Miscellaneous	0-2'74	...	...	0-1'92	...	...	0-1'28	...	...	0-0'64	...	...	0-0'68
Total	9-2'38	...	...	10-14'40	...	...	10-14'56	...	...	10-9'44	...	...	10-8'20
Labour	6-4'48	...	...	6-2'08	...	...	4-10'40	...	...	8-6'68	...	...	5-2'88
Tools, Lubricants and Supplies	2-12'52	...	...	1-10'68	...	...	1-8'32	...	...	1-4'32	...	...	1-5'28
Refractories	2-15'68	...	...	2-0'68	...	...	2-4'16	...	...	2-4'80	...	...	2-5'76
General Works Ex.	2-4'32	...	...	2-4'80	...	...	1-12'16	...	...	1-9'12	...	...	1-0'68
Contingent Fund	0-11'88	...	...	0-11'84	...	...	0-8'64	...	...	0-8'16	...	...	0-7'04
Relining Fund	7-8'00	...	...	7-8'00	...	...	7-8'00	...	...	6-2'60	...	...	4-8'00
Miscellaneous	1-7'04	...	...	2-0'80	...	...	1-10'24	...	...	1-8'16	...	...	1-15'04
Total	23-15'52	...	...	22-12'80	...	...	20-12'92	...	...	18-12'00	...	...	17-2'56
Total Works Cost	68-13'12	...	...	72-8'00	...	...	68-10'24	...	...	60-9'12	...	...	55-8'32
Vield	83'86%	...	...	82'44%	...	...	85'64%	...	...	84'65%	...	...	84'66%

No. 38.

Statement showing the costs of the Bessemer Convertors (Blown Metal) for the years 1923-24, 1924-25 and 1925-26.

Particulars.	1923-24.			1924-25.			1925-26.		
	Rate.	Per ton.	Cost per ton.	Rate	Per ton	Cost per ton.	Rate.	Per ton	Cost per ton.
	Rs. As.	lbs. used.	Rs. As.	Rs. As.	lbs. used.	Rs. As.	Rs. As.	lbs. used.	Rs. As.
Pig Iron	34- 7- 3	2,680	41- 3-52	32- 2-93	2,508	36- 0-32	28-12-25	2,456	31- 3-36
Scrap	...	...	...	20- 0-00	12	0- 1-76	..	4	0- 0-64
			41- 3-52	...	...	36- 2-08	...	...	31- 4-00
Credit for Scrap produced	...	...	1- 7-04	...	...	0-12-48	...	...	0- 9-76
			39-12-48	...	...	35- 5-60	...	...	30-10-24
Fuel	...	...	0- 4-16	...	...	0- 3-68	...	...	0- 1-92
Labour	...	...	2-12-64	...	...	2- 2-66	...	...	1- 8-16
Materials in Repairs	...	...	0-12-16	...	...	0- 5-44	...	...	0- 4-80
Tools and Supplies	...	...	0-14-56	...	...	0- 4-48	...	...	0- 2-24
Refractories	...	...	2- 6-40	...	...	1- 9-28	...	...	1- 3-84
General Works Expenses	...	...	...	...	...	0- 3-68	...	...	0- 3-20
Contingent Fund	...	...	0- 4-80	...	...	0- 3-52	...	...	0- 1-92
Miscellaneous	...	...	0- 2-40	...	...	0- 8-80	...	...	0-12-48
			47- 5-60	...	...	40-15-04	...	...	35- 0-80
Cost above net Metal	...	...	7- 9-12	...	...	5- 9-44	...	...	4- 6-56
Cost of Conversion	...	...	12-14-40	...	...	8-13-12	...	...	6- 9-44
Yield per cent.	...	...	83-58	...	...	88-90	...	...	91-06%

No. 39.

Statement showing the costs of the Duplex Plant Ingots for the years 1922-23, 1923-24, 1924-25 and 1925-26.

Particulars.	1922-23.			1923-24.			1924-25.			1925-26.		
	Rate. Rs. as.	Per ton lbs. used.	Cost per ton. Rs. as.	Rate. Rs. as.	Per ton lbs. used.	Cost per ton. Rs. as.	Rate. Rs. as.	Per ton lbs. used.	Cost per ton. Rs. as.	Rate. Rs. as.	Per ton lbs. used.	Cost per ton. Rs. as.
Pig Iron	86-15-47	2,778	45-12-00	86-2-71	2,102	89-15-20	84-2-49	100	1-8-32	29-6-83	30	0-6-08
Scrap	20-0-00	171	1-8-32	22-2-56	56	0-8-64	20-0-00	13	0-1-92	20-0-00		0-0-80
Blown Metal . . . . .	...	...	...	47-5-38	444	9-8-24	40-15-08	2,415	44-2-08	85-0-83	2,466	38-9-28
Total			47-4-32	...	2,602	48-14-08	...	2,528	45-12-32	...	...	39-0-16
Credit for Scrap produced.	20-0-00	156	1-6-24	20-0-00	218	1-15-04	20-0-00	166	1-7-84	20-0-00	128	1-2-24
Total			45-14-08	...	...	41-15-04	...	...	44-4-48	...	...	37-13-82
Raw Materials . . . . .	...	...	2-8-84	...	...	2-13-76	...	...	2-9-76	...	...	2-4-00
Total . . . . .	...	...	48-1-92	...	...	44-12-30	...	...	46-14-24	...	...	40-1-92
Fluxes . . . . .	...	...	2-15-68	...	...	2-11-84	...	...	2-4-32	...	...	1-15-86
Moulds and Stools . . . . .	...	...	1-0-00	...	...	1-8-00	...	...	1-18-76	...	...	2-0-00
Fuel . . . . .	...	...	12-13-12	...	...	8-8-80	...	...	4-8-16	...	...	2-10-08
Fuel for Miscellaneous . . . . .	...	...	0-7-84	...	...	0-11-84	...	...	0-1-28	...	...	0-2-88
Total . . . . .	...	...	17-4-64	...	...	18-8-48	...	...	8-11-52	...	...	6-12-32
Labour . . . . .	...	...	6-10-98	...	...	7-3-84	...	...	8-12-32	...	...	2-12-00
Tools, Lubricants and Supplies . . . . .	...	...	5-9-44	...	...	2-10-24	...	...	1-2-88	...	...	0-12-72
Refractories . . . . .	...	...	5-5-92	...	...	1-12-32	...	...	1-7-84	...	...	1-5-28
General Works Expense . . . . .	...	...	1-4-88	...	...	0-12-64	...	...	0-8-00	...	...	0-13-12
Contingent Fund . . . . .	...	...	1-1-28	...	...	0-10-72	...	...	0-5-28	...	...	0-3-68
Relining Fund . . . . .	...	...	7-8-00	...	...	7-8-00	...	...	6-7-82	...	...	4-8-00
Miscellaneous . . . . .	...	...	4-10-56	...	...	3-2-24	...	...	1-14-56	...	...	1-2-40
Total . . . . .	...	...	82-8-68	...	...	23-12-00	...	...	15-8-20	...	...	11-15-20
Total Works Cost . . . . .	...	...	97-10-24	...	...	82-1-28	...	...	70-12-96	...	...	58-16-44
Yield . . . . .	...	...	72-18-1	...	...	81-98%	...	...	86-44%	...	...	87-73%

No. 40.

Statement showing the costs of the old Blooming Mill for the years 1921-22, 1922-23, 1923-24, 1924-25 & 1925-26.
(No. LXVI.)

	1921-22.			1922-23.			1923-24.			1924-25.			1925-26.		
	Rate. Rs. s. p.	Per ton lbs. used.	Cost per ton. Rs. as.	Rate. Rs. s. p.	Per ton lbs. used.	Cost per ton. Rs. as.	Rate. Rs. s. p.	Per ton lbs. used.	Cost per ton. Rs. s. p.	Rate. Rs. s. p.	Per ton lbs. used.	Cost per ton. Rs. as.	Rate. Rs. s. p.	Per ton lbs. used.	Cost per ton. Rs. as.
Steel Ingots ...	68-13-7	2,528	77-11-36	72-0-0	2,525	81-12-64	68-14-7	2,537	79-2-73	61-7-5	2,523	68-3-64	56-0-5	2,500	64-0-64
Less Scrap produced...	20-0-0	224	2-0-00	20-0-0	318	1-15-04	26-0-0	221	1-15-52	20-0-0	211	1-14-08	20-0-0	243	2-2-72
Total	75-11-36	...	...	79-13-60	...	...	77-8-20	...	...	67-5-76	...	...	61-13-92
Gas Producers	1-4-80	...	...	1-0-44	...	...	1-8-48	...	...	1-12-16	...	...	2-8-64
Labour	1-11-52	...	...	1-12-64	...	...	1-11-52	...	...	1-10-40	...	...	2-1-44
Materials	1-6-40	...	...	1-6-56	...	...	1-1-00	...	...	0-13-60	...	...	1-3-36
Steam	2-0-00	...	...	1-12-80	...	...	2-13-28	...	...	3-15-08	...	...	4-2-40
General Works expense	0-10-40	...	...	0-10-40	...	...	0-8-00	...	...	0-8-48	...	...	0-4-64
Contingent Fund	0-2-88	...	...	0-2-88	...	...	0-2-40	...	...	0-2-40	...	...	0-3-04
Rolls A/C	0-4-00	...	...	0-4-00	...	...	0-4-00	...	...	0-4-00	...	...	0-4-00
Miscellaneous	0-7-36	...	...	0-9-44	...	...	0-7-84	...	...	0-7-84	...	...	0-10-40
Total	88-10-72	...	...	89-1-76	...	...	85-12-32	...	...	77-0-32	...	...	73-3-84
Yield	88-00%	...	...	88-72%	...	...	89-30%	...	...	88-77%	...	...	87-50%

No. 41.

Statement showing the cost of the Sheet Bar and Billet Mill for years
1923-24, 1924-25 and 1925-26.

	1923-24.	1924-25.	1925-26.
Total Production	Tons. 6,888	63,052	150,477
Metal used per ton	lbs. 2,439	2,368	2,406
Yield	per cent. 91·84	94·59	93·09
Cost per ton	Ra. 115-13·44	96- 1·44	77-12·16
Steel Blooms Cost	„ 99-12- 1	84- 7- 6	68- 5- 3
Blooms Cost per ton	„ 108- 9·76	84- 4·80	73- 6·40
Less Scrap	„ 1- 1·92	0- 8·16	0-13·44
	Ra. 107- 7·84	88-12·64	72- 8·96
Labour	„ 2-15·20	2- 1·12	1- 3·52
Materials Repairs	„ 0- 5·92	0-12·16	0- 3·84
Tools and supplies	„ 0-13·44	0- 6·88	0- 2·72
Steam	„ 0- 4·64	0- 3·20	0- 2·08
General Works Expenses	„ ...	0- 5·12	0- 3·84
Contingent Fund	„ 0- 7·04	0- 5·12	0- 2·08
Rolls	„ 2- 4·00	2- 4·00	2- 4·00
Inspection	„ 0-14·72	0- 1·60	...
Miscellaneous	„ 0- 4·64	0-13·60	0-13·12
Total Ra.	115-13·44	96- 1·44	77-12·16
Cost above Metal	Ra. 8- 5·60	7- 4·60	5- 3·20
Cost of Conversion	„ 16- 1·44	11- 9·92	9- 6·88

No. 42.

Statement showing the cost of the New Blooming Mill for the years 1923-24, 1924-25 and 1925-26.

Particulars.	1923-24			1924-25.			1925-26.					
	Rate.		Per ton.	Rate.		Per ton.	Rate.		Per ton.			
	Rs.	A. P.	lbs. used.	Rs.	A. P.	lbs. used.	Rs.	A. P.	lbs. used.			
Steel Ingots	79	2 5	2,554	90	3 84	2,701	83	0 80	2,574	66	5 76	
Less Scrap	20	0 0	237	2	1 92	382	3	6 72	256	2	4 64	
Total				88	1 92		79	10 08			64	1 12
Gas Producers				0	1 92		0	13 28			0	7 20
Labour				2	4 48		1	12 80			1	7 68
Materials				2	1 12		1	11 36			1	0 00
Steam				0	1 60		0	1 12			0	0 64
General Works Expense				0	4 96		0	1 76			0	2 40
Contingent Fund				0	4 00		0	2 56			0	2 08
Rolls Account				0	4 00		0	4 00			0	4 60
Miscellaneous				0	11 36		0	14 24			0	12 64
Total Cost				93	15 36		86	7 20			68	5 76
Yield				87 71%			82 04%				87 04%	

No. 43.

Statement showing the cost of the old 28" Mill for the years 1921-22, 1922-23, 1923-24, 1924-25 & 1925-26.
(No. LXVII.)

		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	REMARKS.
Total Production	Tons	96,000	80,691	93,121	85,943	45,253	
Materials per ton	Lbs.	2,547	2,649	2,635	2,686	2,727	
Yield	per cent.	81.31	84.57	85.00	83.39	82.15	
Cost per ton	Rs.	116.00	125.07	120.93	110.30	112.99	
Steel Blooms cost	"	83-10.11	89-2-3	85-14-8	76-13-4	73-3-4	
Blooms cost per tons	"	117- 8.98	125-11.20	125-1.104	101-9.28	95-9.60	
Less Scrap, etc.	"	23-0.08	24-11.20	27- 9.92	15-1.28	10-8.32	
		94- 8.16	101- 0.00	98-1.12	86-8.00	85-1.28	
Producer Gas	"	1- 2.72	1- 8.00	1-11.04	1-12.80	2- 9.28	
Labour	"	7-11.04	7-15.68	7-8.80	7- 7.04	9- 8.64	
Materials, Repairs, etc.	"	1-14.08	1-13.60	1-4.84	1- 0.32	1- 6.56	
Tools and Supplies, etc.	"	1- 0.96	1- 0.48	0-14.08	0-13.12	0-15.20	
Rolls A/c.	"	2- 0.00	2- 3.52	2-4.00	2- 3.86	2- 4.00	
Steam	"	3- 2.72	4- 9.28	5- 3.52	6-11.04	7- 1.76	
General Works expense	"	1-15.04	2- 0.00	1-10.24	1- 4.48	0-12.48	
Miscellaneous	"	2- 9.23	2-14.56	2- 5.44	2- 8.64	3- 4.64	
Total Cost	Rs.	116-0.00	125- 1.12	120-14.88	110-4.80	112-15.84	
Cost above Metal	Rs.	21- 3.00	24- 1.12	22-13.76	23-12.80	27-14.56	
Conversion Cost	"	32- 6.00	35-14.88	35- 0.16	33- 7.52	39-12.48	

No. 44.

Statement showing the cost of the New Rail Mill for the years 1924-25 & 1925-26.

				1924-25.	1925-26.
Total Production	...	...	...	Tons. 54,772	94,235
Materials per ton	...	...	...	lbs. 2,972	2,976
Yield	...	...	...	per cent. 75.38	75.28
Cost per ton	...	...	...	Rs. 13-3-84	96-0-32
Steel Blooms cost	...	...	...	" 83-15-0	68-5-83
Blooms Cost per ton	...	...	...	" 111-5-76	90-12-96
Less Scrap, etc.	...	...	...	" 12-7-36	10-3-68
				Rs. 98-14-40	80-9-28
Producers Gas	...	...	...	" ...	0-3-68
Labour	...	...	...	" 4-12-64	6-1-76
Materials, repairs, etc.	...	...	...	" 1-13-44	1-3-84
Tools and Supplies	...	...	...	" 1-9-60	0-14-72
Rolls a/c.	...	...	...	" 2-4-00	2-4-00
Steam	...	...	...	" 0-1-76	0-2-56
General Works expenses	...	...	...	" 0-10-08	0-13-76
Miscellaneous	...	...	...	" 3-1-92	3-10-72
Total				Rs. 113-3-84	96-0-32
Cost above Metal	...	...	...	Rs. 14-5-44	15-7-04
Conversion Cost	...	...	...	" 29-4-80	27-10-56

No. 45.

Statement showing the costs of the Old Bar Mill for the years 1921-22, 1922-23, 1923-24, 1924-25 and 1925-26. (No. LXVIII).

	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	REMARKS.
Total production	Tons 30,000	33,178	41,206	33,799	28,019	
Metal used per ton	lbs. 2,638	2,620	2,633	2,682	2,628	
Yield	per cent. 85	85.60	85.07	85.10	85.23	
Cost per ton	Rs. 135-8-0	138- 8- 6	132-8-10	128-4-4	125-3-1	
Steel Billets cost	" 83-10-5	89- 6-10	85-14-5	77-13-7	73-9-5	
Billets cost per ton	" 98- 5-44	104- 9-60	100-15-84	86-15-52	86- 5-60	
Loss Scrap	" 2-14-58	2-12-32	2-11-20	2-10-56	2-12-32	
	Rs. 95- 6-56	101-13-28	98- 4-54	84- 4-96	83- 9-28	
Gas Producer	" 4-10-24	4- 8-96	4-13-76	4-12-86	5-15-68	
Labour	" 13-11-84	12- 6-72	11- 9-92	14- 0-96	14- 7-04	
Materials Repairs, etc.	" 3- 4-64	2-10-08	1-15-84	1-12-32	2- 1-92	
Tools and Supplies	" 3- 1-44	2- 4-64	2- 0-64	2-15-84	2- 1-12	
Steam	" 4- 8-84	4-13-60	4-12-16	5-13-12	7- 2-08	
General Works Expenses	" 3-11-68	3- 0-00	2- 4-82	2- 1-12	2- 8-80	
Contingent Fund	" 1- 0-16	0-14-56	0-12-64	0-14-56	0-15-84	
Rolls	" 3- 0-00	3- 3-68	3- 4-34	3- 1-44	3- 4-00	
Inspection	" 1- 5-12	1- 0-00	0-14-72	0-14-24	0-13-60	
Miscellaneous	" 2- 0-48	1-12-96	1-11-84	2- 8-90	2- 8-68	
Total Cost	Rs. 135- 8-00	138- 8-48	132- 8-80	128- 4-32	125- 3-04	
Cost above Metal	Rs. 40- 0-00	36-11-20	34- 4-16	38-15-52	41- 9-76	
Cost of Conversion	" 51-14-00	49- 1-60	46-10-40	45- 6-72	51- 9-60	

103

No. 46.

*Statement showing the costs of the Merchant Mill for the years
1924-25 and 1925-26.*

	1924-25.	1925-26.
Total Production	Tons 19,690	60,163
Metal use per ton	lbs. 2,678	2,582
Yield	per cent. 83.63	86.77
Cost per ton	Rs. 134- 1.92	104- 9.44
Steel Billets Cost	" 94- 13.0	77-14.22
Billets cost per ton	" 113- 5.92	89-13.48
Less Scrap	" 3- 3.20	2- 5.76
	Rs. 110- 2.72	87- 6.72
Gas producers	" 2- 9.92	1- 0.48
Labour	" 7-15.84	6- 8.96
Materials, Repairs, etc.	" 2- 2.56	1- 2.08
Tools and Supplies	" 2- 5.28	1- 1.92
Steam	" 0- 3.68	0- 1.44
General Works Expenses	" 1- 1.44	0- 7.84
Contingent Fund	" 0-14.72	0- 8.64
Rolls	" 3- 3.84	3- 4.00
Inspection	" 0-15.04	0-13.60
Miscellaneous	" 2- 6.88	2- 1.76
Total	Rs. 134- 1.92	104- 9.44
Cost above Metal	Rs. 23-15.20	17- 2.72
Cost of Conversion	" 39- 4.96	26-11.04

No. 47.

Statement showing the costs of the Plate Mill for the years 1922-23, 1923-24, 1924-25 and 1925-26.

	1922-23.	1923-24.	1924-25.	1925-26.
Total Production .	Tons. 1,833	22,267	18,285	20,871
Metal used per ton .	lbs. 2,734	3,033	3,077	3,286
Yield	Percent. 81.94	73.94	72.80	68.17
Cost per ton . . .	Rs. 145-13.44	142- 2.08	145-12.16	124- 5.28
Steel Slabs	" 88- 1- 4	89- 12-1	88-5-8	69-14-7
Slabs cost per ton .	" 107- 7.84	121- 8.64	121- 5.76	102-8.96
Less Scrap	" 3- 8.00	6- 4.32	6-10.40	8- 7.86
	Rs. 103-15.84	115-4.32	114-11.36	94- 1.60
Fuel	Rs. 0- 2.88	0- 5.12	1- 8.00	2- 8.00
Labour	" 15- 2.08	10- 7.52	12- 2.40	11- 8.00
Material in Repairs .	" 5- 9.28	4- 6.24	3-12.60	3-11.04
Tools and Supplies .	" 7-14.40	1-15.36	1- 9.76	1- 5.60
Steam . . . . .	" ...	...	...	...
General Works Ex- pense.	" 1- 3.36	0-12.48	1-11.68	1- 6.40
Contingent Fund . .	" 1-13.76	1- 0.32	1- 3.36	0-15.68
Rolls	" 2- 4.00	2- 4.00	2- 4.00	2- 4.00
Inspection	" 1- 0.00	0-14.72	0-15.04	0-13.76
Miscellaneous . . .	" 6-11.84	4-12.00	5-13.76	5-11.20
Total Cost	Rs. 145-13.44	142- 2.08	145-12.16	124- 5.28
Cost above Metal .	Rs. 41-13.60	26-13.76	31- 0.80	30- 3.68
Cost above Metal .	" 57-12.16	52- 6.08	57- 6.5	54- 6.72

No. 48.

Statement showing the costs of the Sheet Mill (Black Sheet) for the years 1924-25 and 1925-26.

	1924-25.	1925-26.
Production	Tons 5,735	28,652
Metal used per ton	lbs. 2,866	2,752
Yield	per cent. 78.17	81.39
Cost per ton	Rs. 203-14.40	181- 2.56
Sheet Bars cost	" 86- 1-1	78- 6.16
Sheet Bars Cost per ton	" 110- 1.76	98- 4.96
Less Scrap	" 4-13.12	3-13.28
	Rs. 105- 4.64	92- 7.68
Fuel	" 6-2.40	5-10.08
Labour... ..	" 62- 2.24	53- 0.96
Materials for Repairs	" 5- 5.44	6- 1.28
Tools and Lubricants, etc.	" 5- 3.20	4-10.56
Steam	" 0- 6.08	0- 5.92
General Works Expense	" 0-11.04	2-13.92
Contingent Fund	" 10- 4.16	6- 9.60
Rolls	" 5- 0.16	6- 0.00
Miscellaneous	" 3- 7.04	3- 6.56
	Rs. 203-14.40	181- 2.56
	Rs. 98- 9.76	88-10.88
Cost above Metal	" 117-13.28	102-12.32
Cost of Conversion		

No. 49.

Statement showing the costs of the Sheet Mill (Plain Galvanized Sheets) for the years 1924-25 & 1925-26.

	1924-25.			1925-26.		
	Rate.	lbs. per ton used.	Cost per ton.	Rate.	lbs. per ton used.	Cost per ton.
	Rs. a. p.		Rs. as.	Rs. a. p.		Rs. as.
Black Sheets	203 10 10	3,132	193 13-92	183 12 2	2,131	173 11-36
Spelter	625 13 2	326	91 1-28	649 4 7	341	98 14-56
Lead	663 7 4	...	0 0-0	...	...	...
Tin	3,990 0 0	...	0 8-48	4,171 10 4	...	0 2-08
Galvanized Bands	208 6 3	42	3 13-28	179 15 7	...	4 8-80
			289 5-76	...	57	277 4-80
Less Credits . . . . .	...	...	10 11-52	...	...	18 13-60
			278 10-24	...	...	260 7-20
Fuel . . . . .	...	...	2 11-52	...	...	1 5-44
Acid . . . . .	...	...	6 10-38	...	...	8 1-76
Sal Ammoniac . . . . .	...	...	4 10-24	...	...	5 2-72
Labour . . . . .	...	...	27 7-36	...	...	17 13-28
Materials for repairs . . . . .	...	...	2 9-60	...	...	3 1-92
Tools, Lubricants, etc. . . . .	...	...	1 6-72	...	...	0 11-36
Steam . . . . .	...	...	0 4-18	...	...	0 2-88
General Works expense . . . . .	...	...	0 7-52	...	...	1 5-92
Contingent Fund . . . . .	...	...	4 13-44	...	...	1 15-36
Miscellaneous . . . . .	...	...	2 5-76	...	...	1 10-24
Total Cost ... . . . .	...	...	332 1-44	...	...	298 14-08
Cost above net Metal . . . . .	...	...	Rs. 53 7-20	...	...	38 6-88
Cost of Conversion . . . . .	...	...	" 72 14-56	...	...	53 4-48

No. 50.

Statement showing the costs of the Sheet Mill (Corrugated Galvanized Sheets) for the years 1924-25 & 1925-26.

	1924-25.	1925-26.
Production	Tons. 1,865	10,291
Metal used per ton	Lbs. 2,244	2,241
Yield	per cent 99.84	99.96
Cost per ton	Rs. 357— 7.68	314—3.04
Galvanized Sheet cost	„ 332—12.64	299—0.50
Galvanized Sheet cost per ton	„ 333— 5.28	298—12.80
Less Scrap	„ 0— 0.48	0—0.16
	„ 333— 4.80	298—12.64
Labour	„ 17— 5.92	9—13.92
Materials for Repairs	„ 0—10.56	0— 5.76
Tools, Lubricants, etc.	„ 0— 4.16	0— 2.40
Steam	„ 0— 4.80	0— 3.52
General Works expense	„ 0— 8.48	1—11.04
Contingent Fund	„ 2— 6.88	1— 1.44
Miscellaneous	„ 2—10.08	2— 0.32
Total Cost	„ 357— 7.68	314—3.04
Cost above Metal	„ 24— 2.88	15— 6.40
Cost of Conversion	„ 24—11.04	15— 8.16

No. 51.

Statement showing the costs of the Sleeper Press for the year 1925-26.

					1925-26.
Production	...	...	...	...	Tons. 1,773
Metal used per ton	...	...	...	...	lbs. 2,875
Yield	...	...	...	...	per cent. 77-90
Cost per ton	...	...	...	...	Rs. 119- 6-72
Sleeper Bars Cost	...	...	...	...	" 79-10- 9
Sleeper Bars Cost per ton	...	...	...	...	" 102- 4-32
Leas Credits	...	...	...	...	" 15- 4-80
					" 96-16-52
Gas	...	...	...	...	" 2- 6-40
Labour	...	...	...	...	" 14- 2-40
Materials for repairs	...	...	...	...	" 1- 9-60
Tools, Lubricants, etc.	...	...	...	...	" 4-11-36
Steam	...	...	...	...	" 0-10-56
General Works Expense	...	...	...	...	" 2- 8-48
Contingent Fund	...	...	...	...	" 1- 2-40
Miscellaneous	...	...	...	...	" 5- 4-00
			Total Cost	...	Rs. 119- 6-72
Cost above Metal	...	...	...	...	Rs. 32- 7-20
Cost of Conversion	...	...	...	...	" 39-12-00

No. 52.

*Statement showing the Prices of Raw Materials charged in the Cost Sheets.
(No. LXXIX.)*

Particulars.	Ore.		Manga- nese.		Lime- stone.		Dolomite.		Coking Coal.		Coke.	
	Rs.	As.	Rs.	As.	Rs.	As.	Rs.	As.	Rs.	As.	Rs.	As.
1923-1923	8	4-66	15	13-00	6	5-50	5	0-08	8	15-33	14	11-90
1923-1924	8	5-41	15	13-00	6	5-66	4	15-75	9	9-08	15	8-25
1924-1925	8	5-22	16	1-25	5	13-16	4	9-58	9	15-50	14	10-66
1925-1926	8	4-50	16	4-25	6	0-08	4	10-17	8	8-04	12	2-33

No. 53.

Statement showing the value of all Imported Stores and Electrical Stores purchased during the years 1922-23 to 1925-26.

	1922-23.				1923-24.				1924-25.				* 1925-26.			
	Stores.		Elect. Stores.		Stores.		Elect. Stores.		Stores.		Elect. Stores.		Stores.		Elect. Stores.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
April	83,402	0 0	17,096	0 0	1,01,912	0 0	24,425	0 0	1,31,223	0 0	27,515	0 0	98,093	0 0	1,291	0 0
May	99,186	0 0	10,060	0 0	1,49,113	0 0	21,850	0 0	2,25,948	0 0	19,534	0 0	64,022	0 0	12,992	0 0
June	1,37,546	0 0	17,489	0 0	1,36,773	0 0	13,457	0 0	2,63,752	0 0	21,063	0 0	65,529	0 0	27,126	0 0
July	1,42,360	0 0	21,346	0 0	1,65,862	0 0	78,073	0 0	4,26,914	0 0	64,758	0 0	1,09,428	0 0	23,411	0 0
August	68,290	0 0	19,411	0 0	1,25,466	0 0	13,545	0 0	1,71,750	0 0	46,852	0 0	1,89,245	0 0	41,428	0 0
September	69,991	0 0	5,009	0 0	1,07,485	0 0	8,361	0 0	7,98,954	0 0	20,249	0 0	2,03,338	0 0	57,159	0 0
October	3,32,108	0 0	1,87,583	0 0	1,63,545	0 0	21,301	0 0	2,63,823	0 0	4,65,413	0 0	2,19,848	0 0	37,238	0 0
November	1,31,778	0 0	8,757	0 0	1,75,908	0 0	61,115	0 0	1,02,208	0 0	5,98,064	0 0	2,05,033	0 0	1,15,504	0 0
December	1,88,026	0 0	24,858	0 0	1,48,594	0 0	22,973	0 0	2,38,812	0 0	1,53,544	0 0	2,61,674	0 0	92,033	0 0
January	83,195	0 0	6,597	0 0	2,52,953	0 0	67,546	0 0	2,42,379	0 0	2,46,729	0 0	2,13,597	0 0	34,591	0 0
February	90,200	0 0	3,882	0 0	2,51,424	0 0	14,415	0 0	1,19,046	0 0	18,452	0 0	2,22,535	0 0	51,025	0 0
March	3,66,840	0 0	53,528	0 0	4,08,434	0 0	21,405	0 0	2,36,710	0 0	1,79,460	0 0	2,25,000	0 0	1,00,000	0 0

* The above figures represent actual cost of material delivered at Jamshedpur and include all purchases both direct from abroad and those from India. With the exception of about 10 per cent. of the goods, they represent articles of freight origin on which customs duty is leviable at various rates.

No. 54.

THE TATA IRON & STEEL COMPANY, LIMITED.

*Statement showing the Consumption of Stores, etc., during the year
1925-26. (No. XCV.)*

	Rs.	A.	P.
Stores	32,24,829	0	0
Electrical	5,87,902	0	0
Timber	1,55,996	0	0
Clay	18,447	0	0
Cement	1,16,852	0	0
Fireclay	1,18,090	0	0
Coal Tar	1,90,486	0	0
Chrome Ore	73,127	0	0
Sand	43,374	0	0
Magnesite	1,90,069	0	0
Lime	8,40,053	0	0
Firewood	40,830	0	0
TOTAL	55,99,955	0	0

No. 55.

Statement showing detailed Analysis of the Ores, Coal, Coke, Dolomite and Limestone and also of the Ash of the Coke used by the Steel Company. (No. XCVI.)

IRON ORE.

	For Blast Furnaces.	For Open Hearth.
	Per cent.	Per cent.
Fe	60.52	66.16
SiO ₂	4.25	2.20
Al ₂ O ₃	3.96	...
Mn	0.52	0.25
Phos.	0.068	0.031

DOLOMITE.

	For Blast Furnaces.	For Open Hearth.
	Per cent.	Per cent.
Insoluble Residue	4.35	1.83 (SiO ₂)
Al ₂ O ₃ and Fe ₂ O ₃	1.26	1.22
CaO	29.80	30.00
MgO	20.37	21.74

LIMESTONE.

	For Blast Furnaces.	For Open Hearth.
	Per cent.	Per cent.
Insoluble Residue	5.96	3.32 (SiO ₂)
Al ₂ O ₃ and Fe ₂ O ₃	1.44	1.47
CaO	48.09	51.53
MgO	4.00	2.52

COKING COAL.

Ash.	Vol. Matter.	Fix. Carbon.	Sul.
16.6 per cent.	24.3 per cent.	59.1 per cent.	0.56 per cent.

COKE.

Ash.	Vol. Matter.	Fix. Carbon.
23.15 per cent.	2.11 per cent.	74.74 per cent.

TYPICAL ANALYSIS OF COKE ASH (1923).

SiO ₂	Fe ₂ O	Al ₂ O ₃	CaO.	MgO	MnO.	P ₂ O ₅	TiO	Total Alkalies.
50.50	11.84	27.39	8.71	1.31	0.47	1.81	1.64	1.15

No. 56.

Statement showing Dividends paid to different classes of Shareholders. (No. XCIX.)

Year.	Total Dividends.			Ordinary.				Deferred.				6% Cumulative 1st Pref.			7½% Cumulative 2nd Pref.			
	Rs.	a.	p.	Per share. Rs. a. p.	%	Total Amount paid. Rs. a. p.	Per share. Rs. a. p.	%	Total Amount paid. Rs. a. p.	Per share. Rs. a. p.	%	Total Amount paid. Rs. a. p.	Rs.	a.	p.	Rs.	a.	p.
1907-08	43,523	14	5	...	...	...	...	...	...	...	...	...	43,523	14	5	...	...	...
1908-09	90,718	5	0	...	...	...	...	...	...	...	...	...	90,718	5	0	...	...	...
1909-10	Nil.			...	...	...	...	...	...	...	...	...	Nil.			...	...	...
1910-11	1,37,278	6	1	...	...	...	...	...	...	...	...	...	1,37,278	6	1	...	...	...
1911-12	2,17,495	1	6	...	...	...	...	...	...	...	...	...	2,17,495	1	6	...	...	...
1912-13	3,68,424	15	10	...	...	...	...	...	...	...	...	...	3,68,424	15	10	...	...	...
1913-14	12,37,384	9	3	4 2 0	6	8,97,115 8 0	...	...	...	...	...	...	3,40,269	1	3	...	...	...
1914-15	18,00,994	11	3	6 0 0	8	11,96,244 0 0	7 8 0	25	1,68,750 0 0	...	...	...	4,96,000	11	3	...	...	...
1915-16	39,18,750	0	0	11 4 0	15	2,50,000 0 0	54 2 8	180½	12,18,750 0 0	...	...	...	4,50,000	0	0	...	...	...
1916-17	64,18,750	0	0	15 0 0	20	30,00,000 0 0	87 8 0	291	19,68,750 0 0	...	...	...	4,50,000	0	0	...	...	...
1917-18	54,18,750	0	0	15 0 0	20	30,00,000 0 0	87 8 0	291	19,68,750 0 0	...	...	...	4,50,000	0	0	...	...	...
1918-19	11,37,500	0	0	4 0 0	71-9	8,00,000 0 0	...	...	...	...	...	...	3,37,500	0	0	...	...	...
1919-20	47,65,625	0	0	12 0 0	16	24,00,000 0 0	60 13 4	202½	13,68,750 0 0	...	...	...	4,50,000	0	0	5,46,875	0	0
1920-21	53,05,208	5	4	12 0 0	16	24,00,000 0 0	60 13 4	202½	13,68,750 0 0	...	...	...	4,50,000	0	0	10,86,458	5	4
1921-22	44,95,995	4	0	2 ½ 0	3	7,86,620 4 0	...	...	...	...	...	...	4,50,000	0	0	32,59,375	0	0
1922-23	4,50,000	0	0	...	...	...	...	...	...	...	...	...	4,50,000	0	0	(Not paid.)		
1923-24	Nil.			...	...	...	...	...	...	...	...	...	(Not paid.)			(Not paid.)		
1924-25	4,50,000	0	0	...	...	...	...	...	...	...	...	...	4,50,000	0	0*	(Not paid.)		
Total Rs.	3,52,56,398	0	0	82 0 0	...	1,67,29,979 12 0	358 5 4	...	80,62,500 0 0	...	...	...	55,71,210 7 4			48,92,708 5 4		

114

DIVIDENDS DUE ON 31-3-1926.

*For 1923-24.

On 1st Preference Shares
for 1924-1925 ... Rs. 4,50,000
.. 1925-1926 4,50,000
Rs. 9,00,000

On Second Preference Shares
for 1922-23 Rs. 50,89,583 5 4
.. 1923-24 .. 52,50,000 0 0
.. 1924-25 .. 52,50,000 0 0
.. 1925-26 .. 52,50,000 0 0
Rs. 2,08,39,583 5 4

No. 57.

Statement showing number of Covenanted and Uncovenanted Employees (Direct). (No. CIII.)

COKE OVENS.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923-24 . .	612,171	...	2,608	7,603	235
1924-25 . .	728,874	...	2,591	2,591	281
1925-26 . .	694,070	...	1,776	1,776	391

No. 58.

Statement showing number of Covenanted and Uncovenanted Employees (Direct). (No. CIII.)

BLAST FURNACES.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923-24 . .	471,651	10	2,196	2,206	214
1924-25 . .	577,695	13	2,028	2,041	238
1925-26 . .	602,404	12	2,004	2,016	299

No. 59.

Statement showing number of Covenanted and Uncovenanted Employees (Direct). (No. CIII.)

OPEN HEARTH.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923-24 . .	198,422	35	1,208	1,243	156
1924-25 . .	306,133	31	1,174	1,205	171
1925-26 . .	220,299	29	1,078	1,105	199

No. 60.

Statement showing number of Covenanted and Uncovenanted Employees (Direct). (No. CIII.)

DUPLEX PLANT (INCLUDING BESSEMER CONVERTERS).

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923—24 . . .	41,616	20	515	535	78
1924—25 . . .	164,046	23	1,345	1,368	120
1925—26 . . .	250,258	20	1,286	1,306	192

No. 61.

Statement showing number of Covenanted and Uncovenanted Employees (Direct). (No. CIII.)

OPEN HEARTH AND DUPLEX PLANT.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923—24 . . .	235,088	55	1,723	1,778	132
1924—25 . . .	370,179	54	2,519	2,573	144
1925—26 . . .	470,557	49	2,362	2,411	195

No. 62.

Statement showing number of Covenanted and Uncovenanted Employees (Direct). (No. CIII.)

OLD BLOOMING MILL.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923—24 . . .	181,540	3	305	308	589
1924—25 . . .	154,059	3	284	287	537
1925—26 . . .	87,825	2	213	215	408

No. 63.

*Statement showing number of Covenanted and Uncovenanted Employees
(Direct.) (No. CIII.)*

NEW BLOOMING MILL.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923-24 . .	23,700	6	92	98	242 (5 months.)
1924-25 . .	158,901	5	353	358	444
1925-26 . .	320,990	7	390	397	809

No. 64.

*Statement showing number of Covenanted and Uncovenanted Employees
(Direct.) (No. CIII.)*

OLD RAIL MILL.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923-24 . .	93,131	13	1,338	1,351	69
1924-25 . .	85,943	10	1,168	1,178	73
1925-26 . .	45,253	3	798	741	61

No. 65.

*Statement showing number of Covenanted and Uncovenanted Employees
(Direct.) (No. CIII.)*

NEW RAIL MILL.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923-24 . .	...	...	...	...	...
1924-25 . .	54,772	9	501	510	107 (9 months.)
1925-26 . .	94,235	11	791	802	118

No. 66.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct). (No. CIII.)

BAR MILLS.

Year.	Production. Tons.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
1923-24 . . .	41,206	3	973	976	42
1924-25 . . .	33,799	1	813	814	42
1925-26 . . .	28,019	1	789	790	35

No. 67.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct). (No. CIII.)

MERCHANT MILL.

Year.	Production. Tons.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
1923-24 . . .	...	...	...	...	...
1924-25 . . .	19,690	5	325	330	60 (10 months.)
1925-26 . . .	60,163	3	899	902	67

No. 68.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct). (No. CIII.)

PLATE MILL.

Year.	Production. Tons.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
1923-24 . . .	22,267	5	178	183	122
1924-25 . . .	12,285	4	191	195	94
1925-26 . . .	20,871	3	251	254	82

N.B.—Increase due to the Sleeper plant men included at the time of the Sleeper plant not in Operation which is approximately 50 per cent. of the time.

No. 69.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct). (No. CIII.)

SHEET BAR AND BILLET MILL.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons.				
1923-24 . . .	6,688	3	35	38	176 (2 months.)
1924-25 . . .	63,052	3	84	87	725
1925-26 . . .	150,477	3	146	149	1,010

No. 70.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct). (No. CIII.)

SHEET MILL.

Year.	Production.	Covenanted Employees.	Uncovenanted Employees Direct Labour.	Total Direct Labour.	Tonnage per Head per Annum.
	Tons				
1923-24 . . .	...	...	...	...	...
1924-25 . . .	5,735	65	935	1,000	6 (4 months.)
1925-26 . . .	28,652	56	1,259	1,315	22

No. 71.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect). (No. CIII.)

COKE OVENS.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage per Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic and Contract Labour.	Total.				
	Tons.							Rs.
1923-24 . . .	612,171	258	77	635	2,603	3,238	189	285
1924-25 . . .	728,874	269	294	583	2,591	3,174	230	255
1925-26 . . .	694,070	176	434	610	1,776	2,386	291	324

No. 72.

Statement showing number of Convenanted and Unconvenanted Employees (Direct and Indirect). (No. CIII.)

BLAST FURNACE.

Year.	Production.	Unconvenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage Head per annum.	Wages Head per annum.
		Shop Labour.	Traffic and Contract Labour.	Total.				
	Tons.						Rs.	
1923—24 . . .	471,651	451	599	1,050	2,206	3,256	145	359
1924—25 . . .	577,695	467	568	1,035	2,041	3,076	188	374
1925—26 . . .	602,404	303	620	923	2,016	2,939	205	403

No. 73.

Statement showing number of Convenanted and Unconvenanted Employees (Direct and Indirect). (No. CIII.)

OPEN HEARTH.

Year.	Production.	Unconvenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage Head per annum.	Wages Head per annum.
		Shop Labour.	Traffic & Contract Labour.	Total.				
	Tons.						Rs.	
1923—24 . . .	193,422	328	46	374	1,243	1,617	120	676
1924—25 . . .	206,133	352	54	406	1,205	1,611	128	694
1925—26 . . .	220,299	357	92	449	1,105	1,554	142	734

No. 74.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect). (No. CIII.)

DUPLEX PLANT.

(Including Bessemer Converters.)

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage Head per annum.	Wages Head per annum.
		Shop Labour.	Traffic and Contract Labour.	Total.				
	Tons.						Rs.	
1923-24 . . .	41,616	246	20	266	535	801	52 405	
1924-25 . . .	164,046	455	13	468	1,368	1,836	89 546	
1925-26 . . .	250,258	446	39	485	1,306	1,791	140 616	

No. 75.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect). (No. CIII)

OPEN HEARTH AND DUPLEX PLANT.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic and Contract Labour.	Total.				
	Tons.						Rs.	
1923-24 . . .	235,039	574	66	640	1,778	2,418	97 586	
1924-25 . . .	370,179	807	67	874	2,573	3,447	107 615	
1925-26 . . .	470,557	803	131	934	2,411	3,345	141 671	

No. 76.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect). (No. CIII.)

OLD BLOOMING MILL.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage per Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic and Contract Labour.	TOTAL.				
	Tons.						Rs.	
1923—24 . . .	181,540	195	20	215	308	523	347	597
1924—25 . . .	154,059	193	26	219	287	506	304	508
1925—26 . . .	87,825	138	20	158	215	373	235	491

No. 77.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect). (No. CIII.)

NEW BLOOMING MILL.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage per Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic and Contract Labour.	TOTAL.				
	Tons.						Rs.	
1923—24 . . .	23,700	60	9	69	98	167	142	*323
1924—25 . . .	158,901	163	20	183	358	541	294	527
1925—26 . . .	320,990	486	11	497	397	894	359	530

* (5 months.)

No. 78.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect). (No. CIII.)

OLD RAIL MILL.

Year.	Production.	Uncovenanted Em - ployees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage Head per Annum.	Wages per Head per Annum.
		Shop La- bour.	Traffic & Contract Labour.	Total.				
	Tons.							Rs.
1923-24 . . .	98,121	247	52	299	1,351	1,650	56	426
1924-25 . . .	85,943	189	69	258	1,178	1,436	60	445
1925-26 . . .	45,253	169	23	192	741	933	49	463

No. 79.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect.) (No. CIII.)

NEW RAIL MILL.

Year.	Production.	Uncovenanted Em- ployees Indirect Labour.			Direct Labour.	Total Labour.	per Head per Annum.	Wages per Head per Annum.
		Shop La- bour.	Traffic & Contract Labour.	Total.				
	Tons.							Rs.
1923-24 . . .	...	...	...	...	...	...	...	...
1924-25 . . .	54,772	134	29	163	510	673	81	*890
1925-26 . . .	94,235	324	33	357	802	1,159	81	496

* (9 months.)

E *

No. 80.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect.) (No. CIII.)

BAR MILLS.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage per Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic & Contract Labour.	Total.				
	Tons.							Rs.
1923—24 . . .	41,206	116	40	156	976	1,132	36	423
1924—25 . . .	33,799	89	88	177	814	991	34	505
1925—26 . . .	28,019	103	37	140	790	930	30	435

No. 81.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect.) (No. CIII.)

MERCHANT MILL.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage per Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic & Contract Labour.	Total.				
	Tons.							Rs.
1923—24 . . .	...	...	...	...	...	...	...	...
1924—25 . . .	19,690	47	20	67	330	397	50	*306
1925—26 . . .	60,163	134	12	146	902	1,048	57	377

125

No. 82.

Statement showing number of Covenanted and Uncovenanted Employees (Direct and Indirect). (No. CIII.)

PLATE MILL.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage per Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic & Contract Labour.	Total.				
	Tons.						Rs.	
1923—24 . .	22,267	161	48	209	183	392	57	595
1924—25 . .	18,286	146	27	173	195	368	50	604
1925—26 . .	20,871	147	4	151	254	405	52	593

No. 83.

Statement showing number of Covenanted and Uncovenanted Employees (Direct and Indirect). (No. C. III.)

SHEET MILL.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage per Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic & Contract Labour.	Total.				
	Tons.						Rs.	
1923—24 . .	...	..	...	...	...	...	...	...
1924—25 . .	5,735	161	81	242	1,000	1,242	5	*359
1925—26 . .	28,652	341	47	388	1,315	1,708	17	1,085

*(4 months.)

No. 84.

Statement showing number of Covenanted and Uncovenanted Employees
(Direct and Indirect), (No. C. III.)

SHEET BAR & BILLET MILL.

Year.	Production.	Uncovenanted Employees Indirect Labour.			Direct Labour.	Total Labour.	Tonnage Head per Annum.	Wages per Head per Annum.
		Shop Labour.	Traffic & Contract Labour.	Total.				
	Tons.							Rs.
1923—24 . . .	6,688	34	...	34	38	72	93	*274
1924—25 . . .	63,052	72	16	88	87	175	360	745
1925—26 . . .	150,477	127	2	129	149	278	541	661

*(2 months.)

No. 85.

Statement showing the Orders booked for each month from June 1925 to March 1926.

HEAVY STRUCTURAL.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
June 1925.												
1st Class	Tons. 37	Rs. 160.41	Tons. 5	Rs. 158.60	Tons. 581	Rs. 141.60	Tons. 820	Rs. 151.57	Tons. 99	Rs. 153.64	Tons. 1,542	Rs. 148.18
2nd " . . . . .	...	...	3	110.00	113	112.31	77	129.47	...	...	193	119.50
Cuttings . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	37	160.41	8	140.37	694	136.83	897	149.67	99	153.64	1,735	144.99
July 1925.												
1st Class	2	170.00	6	144.74	1,314	147.49	1,530	148.29	230	139.69	3,082	147.31
2nd " . . . . .	...	...	...	...	16	106.12	...	...	...	...	16	106.12
Cuttings . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	2	170.00	6	144.74	1,330	146.99	1,530	148.29	230	139.69	3,098	147.10
August 1925.												
1st Class . . . . .	...	...	5	138.20	1,703	138.65	599	149.30	44	125.63	2,351	141.12
2nd " . . . . .	...	...	...	...	18	104.73	62	125.58	16	123.06	96	121.08
Cuttings . . . . .	...	...	...	...	62	97.00	16	65.00	...	...	78	42.35
TOTAL	...	...	5	138.20	1,783	134.83	677	145.13	60	124.95	2,525	137.36
September 1925.												
1st Class . . . . .	...	...	7	151.43	470	138.28	667	153.28	20	160.00	1,164	147.85
2nd " . . . . .	...	...	2	110.00	...	...	181	116.72	7	115.84	190	117.06
Cuttings . . . . .	...	...	...	...	...	...	196	51.43	...	...	196	51.43
TOTAL	...	...	9	143.33	470	138.28	1,044	127.93	27	148.88	1,550	131.49
October 1925.												
1st Class	2	190.00	2	153.03	1,820	137.47	601	150.86	8	135.64	2,433	140.82
2nd " . . . . .	...	...	...	...	...	...	117	122.75	...	...	117	122.75
Cuttings . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	2	190.00	2	153.03	1,820	137.47	718	146.31	8	135.64	2,550	139.96

HEAVY STRUCTURAL—continued.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
November 1925.												
1st Class	2	160.00	...	...	706	137.28	438	150.92	58	144.26	1,204	142.62
2nd „ . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Cuttings . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	2	160.00	...	...	706	137.28	438	150.92	58	144.26	1,204	142.62
December 1925.												
1st Class . . . . .	...	...	44	152.84	5,448	136.81	195	153.45	2	160.00	5,689	137.51
2nd „ . . . . .	...	...	...	...	...	...	149	125.42	1	130.00	150	125.45
Cuttings . . . . .	...	...	...	...	1	100.00	...	...	...	...	1	100.00
TOTAL . . . . .	...	...	44	152.84	5,449	136.80	344	141.30	3	150.00	5,840	137.19
January 1926.												
1st Class . . . . .	...	...	10	154.23	1,435	136.25	194	145.94	4	149.00	1,643	137.55
2nd „ . . . . .	...	...	...	...	8	140.00	60	110.10	4	153.10	72	115.60
Cuttings . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL . . . . .	...	...	10	154.23	1,443	136.27	254	137.47	8	152.75	1,715	136.63
February 1926.												
1st Class	24	156.58	14	156.48	989	136.15	464	139.60	62	149.72	1,553	138.16
2nd „ . . . . .	...	...	...	...	...	...	59	110.00	1	155.00	60	112.01
Cuttings . . . . .	...	...	...	...	...	...	...	...	40	65.00	40	65.00
TOTAL	24	156.58	14	156.48	989	136.15	523	136.27	103	116.87	1,653	135.45
March 1926.												
1st Class . . . . .	...	...	25	150.37	1,700	133.88	168	136.14	40	145.40	1,933	134.54
2nd „ . . . . .	...	...	...	...	...	...	59	125.53	...	...	59	125.53
Cuttings . . . . .	...	...	...	...	...	...	19	66.57	...	...	19	66.57
TOTAL . . . . .	...	...	25	150.37	1,700	133.88	245	123.21	40	145.40	2,011	133.63

No. 86.

Statement showing Orders booked for each month from June 1925 to March 1926.

LIGHT STRUCTURAL.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
June 1925.												
1st Class	Tons. 3	Rs. 170'00	Tons. 3	Rs. 151'70	Tons. 618	Rs. 141'01	Tons. 572	Rs. 132'38	Tons. 137	Rs. 129'45	Tons. 1,333	Rs. 136'26
2nd „	„ „	„ „	„ „	„ „	„ „	„ „	„ 84	„ 92'72	„ „	„ „	„ 84	„ 92'72
Cuttings	„ „	„ „	„ „	„ „	„ „	„ „	„ 16	„ 80'00	„ „	„ „	„ 16	„ 80'00
TOTAL	3	170'00	3	151'70	618	141'01	672	126'24	137	129'45	1,433	133'07
July 1925.												
1st Class	„ „	„ „	„ 14	Rs. 168'91	481	Rs. 144'32	1,155	Rs. 128'88	1,118	Rs. 126'09	2,768	Rs. 130'99
2nd „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „
Cuttings	„ „	„ „	„ „	„ „	„ „	„ „	„ 125	„ 59'56	„ 15	„ 109'91	„ 140	„ 64'98
TOTAL	„ „	„ „	14	168'91	481	144'32	1,280	122'15	1,133	126'73	2,908	127'81
August 1925.												
1st Class	„ „	„ „	„ „	„ „	1,051	Rs. 148'37	452	Rs. 136'75	95	Rs. 124'29	1,598	Rs. 143'63
2nd „	„ „	„ „	„ „	„ „	„ „	„ „	„ 56	„ 112'36	„ „	„ „	„ 56	„ 112'36
Cuttings	„ „	„ „	„ „	„ „	„ „	„ „	„ 48	„ 65'33	„ 257	„ 39'66	„ 305	„ 44'34
TOTAL	„ „	„ „	„ „	„ „	1,051	148'37	556	133'71	352	62'71	1,959	127'08
September 1925.												
1st Class	„ „	„ „	„ 8	Rs. 152'25	506	Rs. 134'84	565	Rs. 136'09	87	Rs. 138'27	1,186	Rs. 136'41
2nd „	„ „	„ „	„ „	„ „	„ „	„ „	„ 71	„ 112'00	„ „	„ „	„ 71	„ 112'00
Cuttings	„ „	„ „	„ „	„ „	„ „	„ „	„ 46	„ 85'00	„ „	„ „	„ 46	„ 85'00
TOTAL	„ „	„ „	8	152'25	506	134'84	702	131'10	87	138'27	1,803	133'14
October 1925.												
1st Class	5	Rs. 180'00	55	Rs. 155'39	287	Rs. 141'79	543	Rs. 139'08	2	Rs. 141'11	892	Rs. 141'15
2nd „	„ „	„ „	„ „	„ „	„ „	„ „	„ 242	„ 82'86	„ „	„ „	„ 242	„ 82'88
Cuttings	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „	„ „
TOTAL	5	180'00	55	155'39	287	141'79	785	121'82	2	141'11	1,134	128'76

LIGHT STRUCTURAL—continued.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
November 1925.												
1st Class	1	150.00	4	152.33	771	142.23	279	139.85	3	151.27	1,058	141.58
2nd „ . . . . .	...	...	...	...	...	...	...	...	52	115.00	52	115.00
Cuttings . . . . .	...	...	...	...	...	...	5	85.00	8	44.00	13	59.77
TOTAL	1	150.00	4	152.33	771	142.23	284	138.88	63	108.08	1,123	139.44
December 1925.												
1st Class . . . . .	...	...	7	149.13	1,652	148.29	344	138.83	1	139.59	2,004	146.72
2nd „ . . . . .	...	...	...	...	...	...	95	110.60	...	...	95	110.00
Cuttings . . . . .	...	...	...	...	...	...	19	85.00	...	...	19	85.00
TOTAL	...	...	7	149.13	1,652	148.29	458	130.76	1	139.59	2,118	144.44
January 1926.												
1st Class . . . . .	...	...	27	152.31	1,289	135.16	391	139.56	141	138.93	1,848	136.59
2nd „ . . . . .	...	...	...	...	...	...	28	114.10	12	142.47	40	122.28
Cuttings . . . . .	...	...	...	...	...	...	18	85.00	...	...	18	85.00
TOTAL	...	...	27	152.31	1,289	135.16	437	135.68	153	139.14	1,906	135.80
February 1926.												
1st Class	27	158.77	1	60.00	570	135.53	208	143.05	143	139.02	949	138.40
2nd „ . . . . .	...	...	...	...	...	...	...	...	4	142.00	4	142.00
Cuttings . . . . .	...	...	...	...	...	...	95	85.00	...	...	95	85.00
TOTAL	27	158.77	1	160.00	570	135.53	303	124.55	147	139.41	1,048	133.62
March 1926.												
1st Class	35	156.00	29	160.00	1,081	139.23	153	140.04	4	137.45	1,302	140.27
2nd „ . . . . .	...	...	...	...	12	50.00	...	...	...	...	12	50.00
Cuttings . . . . .	...	...	...	...	...	...	10	85.00	9	55.00	19	68.57
TOTAL	35	156.00	29	160.00	1,093	138.25	163	136.67	13	89.46	1,333	138.46

No. 87.

Statement showing the Orders booked for each month from June 1925 to March 1926.

BARS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
June 1925.												
1st Class	60	154.64	582	153.25	2,861	140.03	605	131.07	4,108	141.40
2nd „	207	92.77	...	...	207	92.77
Cuttings	101	83.98	...	...	101	83.98
TOTAL	60	154.66	582	153.25	3,169	135.97	605	131.07	4,416	137.81
July 1925.												
1st Class	2	200.00	122	167.51	661	148.51	2,851	135.03	1,092	130.26	4,728	136.70
2nd „
Cuttings	433	89.94	193	91.95	566	89.90
TOTAL	2	200.00	122	167.51	661	148.51	3,284	128.97	1,225	126.04	5,294	134.23
August 1925.												
1st Class	41	186.63	4	146.00	720	148.72	1,370	137.14	793	130.78	2,928	138.86
2nd „
Cuttings	581	77.66	100	42.00	681	72.43
TOTAL	41	186.63	4	146.00	720	148.72	1,951	119.45	893	120.89	3,609	126.31
September 1925.												
1st Class	89	152.69	617	148.79	1,649	138.62	559	129.91	2,934	139.94
2nd „
Cuttings	19	40.00	319	90.30	20	45.00	358	76.08
TOTAL	89	152.69	656	145.74	1,968	128.67	579	127.04	3,292	132.74
October 1925.												
1st Class	125	155.59	755	142.74	3,841	144.27	557	128.22	5,278	142.63
2nd „	328	109.00	...	...	328	109.00
Cuttings	148	44.46	20	50.00	168	45.12
TOTAL	125	155.59	755	142.74	4,317	138.16	557	125.15	5,774	137.87

BARS—Continued.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
November 1925.												
1st Class	33	158.98	1	152.75	488	141.25	2,876	141.72	1,060	126.38	4,458	138.18
2nd „ . . . . .	...	...	...	...	...	...	...	...	69	115.00	69	115.00
Cuttings . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	33	158.98	1	152.75	488	141.25	2,876	141.72	1,129	125.73	4,527	137.82
December 1925.												
1st Class . . . . .	...	...	180	151.93	1,962	136.42	3,001	142.41	1,032	135.87	6,175	139.67
2nd „ . . . . .	...	...	...	...	...	...	125	109.76	...	...	125	109.76
Cuttings . . . . .	...	...	...	...	...	...	152	82.50	...	...	152	82.50
TOTAL . . . . .	...	...	180	151.93	1,962	136.42	3,278	138.37	1,032	135.87	6,452	137.74
January 1926.												
1st Class . . . . .	...	...	41	152.32	1,809	142.47	2,988	142.69	726	129.09	5,564	140.94
2nd „ . . . . .	...	...	...	...	...	...	31	122.00	...	...	31	122.00
Cuttings . . . . .	...	...	...	...	...	...	443	77.84	...	...	443	77.84
TOTAL . . . . .	...	...	41	152.32	1,809	142.47	3,462	134.22	726	129.09	6,038	136.21
February 1926.												
1st Class	26	147.65	98	159.74	1,147	146.97	2,685	141.40	244	130.57	4,200	142.72
2nd „ . . . . .	...	...	...	...	...	...	8	115.00	...	...	8	115.00
Cuttings . . . . .	...	...	...	...	...	...	394	75.63	...	...	364	75.63
TOTAL	26	147.65	98	159.74	1,147	146.97	3,057	133.49	244	130.57	4,572	137.33
March 1926.												
1st Class	387	158.07	21	161.10	843	145.50	1,830	145.47	233	138.70	3,314	146.51
2nd „ . . . . .	...	...	...	...	...	...	213	111.64	...	...	213	111.64
Cuttings . . . . .	...	...	...	...	...	...	572	71.66	12	54.32	584	71.39
TOTAL	387	158.07	21	161.10	843	145.50	2,615	126.51	245	134.56	4,111	134.03

No. 88.

Statement showing Orders booked for each month from June 1925 to March 1926.

LARGE CIRCULAR PLATES.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
June 1925
July	94	134.42	...	...	94	134.42
August
September	16	200.00	...	...	16	200.00
October
November	62	140.00	...	...	62	140.00
December
January 1926	5	200.00	...	...	5	200.00
February
March
Total	177	144.35	...	...	177	144.35

No. 89.

Statement showing Orders booked for each month from June 1925 to March 1926.

SMALL CIRCULAR PLATES.

Months.	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
June 1925
July	37	200.00	...	...	37	200.00
August	32	205.00	32	205.00
September	32	205.00	...	...	32	205.00
October
November
December
January 1926
February	62	180.00	...	...	62	180.00
March
Total	131	191.79	32	205.00	163	194.69

No. 90.

Statement showing Orders booked for each month from June 1925 to March 1926.

PLATES.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
June 1925.												
1st Class	41	154.48	428	145.00	87	148.03	54	144.38	610	145.58
2nd "	71	110.00	...	...	71	110.00
Cuttings
TOTAL	41	154.48	428	145.00	158	130.12	54	144.38	661	141.94
July 1925.												
1st Class	477	149.13	184	153.60	23	145.15	684	150.32
2nd "	74	103.93	74	103.93
Cuttings	8	110.00	90	100.00	...	...	93	109.16
TOTAL	480	148.83	274	138.36	97	115.09	851	140.86
August 1925.												
1st Class	2,988	140.98	147	151.43	42	140.35	3,177	141.58
2nd "	8	107.00	...	...	...	...	8	107.00
Cuttings	764	84.51	45	100.00	809	85.33
TOTAL	2,996	140.90	911	95.31	67	123.82	3,994	130.13
September 1925.												
1st Class	40	178.57	3	180.00	156	143.79	134	151.50	1	145.00	334	151.32
2nd "	3	112.00	175	110.00	...	...	178	110.00
Cuttings	32	103.00	...	...	32	103.00
TOTAL	40	178.57	3	180.00	159	142.29	341	125.79	1	145.00	544	135.26
October 1925.												
1st Class	4	170.00	12	159.16	951	145.74	278	145.28	7	145.00	1,252	145.85
2nd "	3	112.00	62	110.00	...	...	65	110.00
Cuttings	217	50.00	361	50.00	578	50.00
TOTAL	4	170.00	12	159.16	954	145.70	557	104.22	368	51.83	1,895	115.38

PLATES—continued.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
November 1925.												
1st Class	Tons. 5	Rs. 150'00	Tons. 10	Rs. 162'42	Tons. 959	Rs. 143'16	Tons. 107	Rs. 150'18	Tons. 48	Rs. 159'69	Tons. 1,129	Rs. 144'77
2nd „ . . . . .	...	...	...	...	...	...	20	110'00	...	...	20	110'00
Cuttings . . . . .	...	...	...	...	381	22'00	114	50'00	228	50'00	880	47'19
TOTAL	5	150'00	10	162'42	997	138'59	241	99'45	276	69'20	1,529	120'06
December 1925.												
1st Class	7	139'46	47	161'55	1,904	139'28	71	140'92	31	145'00	2,060	140'02
2nd „ . . . . .	...	...	...	...	...	...	57	110'00	...	...	57	110'00
Cuttings . . . . .	...	...	...	...	...	...	75	50'00	115	50'00	190	50'00
TOTAL	7	139'46	47	161'55	1,904	139'28	203	98'64	146	70'03	2,307	181'80
January 1926.												
1st Class . . . . .	...	...	122	162'51	4,473	136'69	19	144'21	279	137'32	4,893	137'37
2nd „ . . . . .	...	...	...	...	...	...	161	110'00	50	110'00	211	110'00
Cuttings . . . . .	...	...	...	...	...	...	214	91'12	...	...	214	91'12
TOTAL . . . . .	...	...	122	162'51	4,473	136'69	394	101'40	329	133'18	5,318	134'45
February 1926.												
1st Class	38	145'00	57	169'45	1,777	138'55	50	115'00	20	145'00	1,942	138'97
2nd „ . . . . .	...	...	...	...	...	...	138	110'00	...	...	138	110'00
Cuttings . . . . .	...	...	...	...	...	...	175	49'89	271	45'23	444	47'04
TOTAL	38	145'00	57	169'45	1,777	138'55	361	81'89	291	52'09	2,524	121'22
March 1926.												
1st Class . . . . .	...	...	11	163'44	1,548	138'72	20	156'04	...	...	1,579	139'25
2nd „ . . . . .	...	...	...	...	2	140'00	40	116'20	...	...	42	116'68
Cuttings . . . . .	...	...	...	...	...	...	134	100'14	...	...	134	100'14
TOTAL . . . . .	...	...	11	163'44	1,550	138'73	194	109'27	...	...	1,755	135'62

No. 91.

Statement showing the Orders booked for each month from June 1925 to March 1926.

BLACK SHEETS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
June 1925.												
1st Class	256	174.26	806	189.92	214	173.66	1,276	184.04
2nd "
Cuttings	80	48.00	50	80.00	180	41.08
TOTAL	256	174.26	886	177.10	264	146.21	1,406	171.52
July 1925.												
1st Class	15	177.10	630	172.52	99	165.09	744	171.60
2nd "
Cuttings
TOTAL	15	177.10	630	172.52	99	165.09	744	171.60
August 1925.												
1st Class	11	167.11	1,044	176.55	849	170.18	1,404	174.90
2nd "
Cuttings
TOTAL	11	167.11	1,044	176.55	849	170.18	1,404	174.90
September 1925.												
1st Class	2	170.00	784	170.78	99	172.59	885	170.99
2nd "
Cuttings	40	70.86	316	84.74	766	55.47
TOTAL	2	170.00	1,224	134.72	415	87.63	1,641	117.80
October 1925.												
1st Class	26	176.94	904	168.12	257	169.66	1,187	168.69
2nd "	151	180.79	...	...	151	180.79
Cuttings	481	64.54	453	36.24	934	50.82
TOTAL	26	176.94	1,536	182.02	710	84.68	2,272	117.71

BLACK SHEETS—contd.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
November 1925.												
1st Class	...	...	...	...	47	183.91	335	173.35	503	157.49	885	164.89
2nd "	...	...	...	...	...	...	57	141.66	...	...	57	141.66
Cuttings	...	...	...	...	...	...	360	84.94	38	42.50	398	80.89
TOTAL	...	...	...	...	47	183.91	752	128.59	541	149.42	1,340	139.00
December 1925.												
1st Class	...	...	...	...	39	181.87	606	172.42	177	164.95	822	171.30
2nd "	...	...	...	...	...	...	...	...	...	...	...	...
Cuttings	...	...	...	...	...	...	57	51.66	97	50.46	154	50.90
TOTAL	...	...	...	...	39	181.87	663	162.28	274	124.42	976	152.30
January 1926.												
1st Class	...	...	...	...	668	196.74	521	164.00	153	159.89	1,342	179.98
2nd "	...	...	...	...	...	...	...	...	...	...	...	...
Cuttings	...	...	...	...	...	...	204	53.65	334	24.46	538	35.53
TOTAL	...	...	...	...	668	196.74	725	132.96	487	67.01	1,880	138.64
February 1926.												
1st Class	52	213.00	...	...	620	196.13	664	157.26	91	158.82	1,427	176.28
2nd "	...	...	...	...	...	...	61	152.34	...	...	61	152.34
Cuttings	...	...	...	...	...	...	209	76.82	421	24.64	630	41.95
TOTAL	52	213.00	...	...	620	196.13	934	138.95	512	48.49	2,118	135.64
March 1926.												
1st Class	...	...	...	...	20	172.78	413	153.05	102	170.75	535	157.24
2nd "	...	...	...	...	...	...	...	...	...	...	...	...
Cuttings	...	...	...	...	...	...	342	25.09	38	31.39	380	25.72
TOTAL	...	...	...	...	20	172.78	755	95.08	140	132.92	915	102.62

No. 92.

Statement showing Orders booked for each month from June 1925 to March 1926.

GALVANISED SHEETS PLAIN.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
June 1925.												
1st Class	2	303.33	326	306.66	7	317.14	335	306.89
2nd "
Cuttings
TOTAL	2	303.33	326	306.66	7	317.14	335	306.89
July 1925.												
1st Class	5	326.75	264	306.09	...	...	269	306.48
2nd "
Cuttings
TOTAL	5	326.75	264	306.09	...	...	269	306.48
August 1925.												
1st Class	1	305.00	144	300.58	...	...	145	300.61
2nd "
Cuttings
TOTAL	1	305.00	144	300.58	...	...	145	300.61
September 1925.												
1st Class	40	304.35	...	...	40	304.35
2nd "
Cuttings	8	150.00	...	...	8	150.00
TOTAL	48	278.60	...	...	48	278.60
October 1925.												
1st Class	2	305.00	...	...	107	293.84	...	...	109	294.26
2nd "
Cuttings	48	170.00	...	...	48	170.00
TOTAL	2	305.00	...	...	155	255.61	...	...	157	256.11

GALVANISED SHEETS PLAIN—continued.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
November 1925.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
1st Class	120	303.99	...	...	120	303.99
2nd „
Cuttings
TOTAL	120	303.99	...	...	120	303.99
December 1925.												
1st Class	83	305.54	...	...	83	305.54
2nd „
Cuttings
TOTAL	83	305.54	...	...	83	305.54
January 1926.												
1st Class	334	297.29	30	298.60	364	297.40
2nd „
Cuttings
TOTAL	334	297.29	30	298.60	364	297.40
February 1926.												
1st Class	332	298.43	19	294.00	351	298.19
2nd „
Cuttings
TOTAL	332	298.43	19	294.00	351	298.19
March 1926.												
1st Class	347	298.94	...	...	347	298.94
2nd „
Cuttings
TOTAL	347	298.94	...	...	347	298.94

No. 93.

Statement showing Orders booked for each month from June 1925 to March 1926.

GALVANISED CORRUGATED IRON SHEETS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Value per ton.	Quantity.	Value per ton.	Quantity.	Value per ton.	Quantity.	Value per ton.	Quantity.	Value per ton.	Quantity.	Value per ton.
June 1925.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
1st Class	5	278 40	1,103	293 97	125	302 17	1,233	293 11
2nd ,,
Cuttings
TOTAL	5	278 40	1,103	293 97	125	302 17	1,233	293 11
July 1925.												
1st Class	2	306 00	634	293 71	46	290 00	682	293 92
2nd ,,	166	208 69	82	220 00	248	212 50
Cuttings
TOTAL	2	306 00	800	276 41	128	245 15	930	272 17
August 1925.												
1st Class	13	267 00	277	292 20	50	235 00	340	282 44
2nd ,,	1	220 00	1	220 00
Cuttings	408	57 82	98	82 14	506	62 53
TOTAL	13	267 00	685	152 55	149	134 07	847	150 99
September 1925.												
1st Class	426	285 09	...	...	426	285 09
2nd ,,
Cuttings	104	42 00	...	...	104	42 00
TOTAL	530	237 57	...	...	530	237 57
October 1925.												
1st Class	2	300 00	...	...	532	284 59	5	300 00	539	284 77
2nd ,,
Cuttings	47	170 00	19	170 00	66	170 00
TOTAL	2	300 00	...	...	579	275 29	24	197 07	605	272 25

GALVANISED CORRUGATED IRON SHEETS—continued.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.		Quantity.		Quantity.		Quantity.		Quantity.		Quantity.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
November 1925.												
1st Class	...	...	...	...	...	...	1,183	288.63	186	298.82	1,369	290.02
2nd "	...	...	...	...	...	...	...	...	16	235.00	16	235.00
Cuttings	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	1,183	288.63	202	294.01	1,385	289.28
December 1925.												
1st Class	10	394.79	...	...	16	297.00	307	280.70	35	295.14	368	282.99
2nd "	...	...	...	...	...	...	19	220.00	20	220.00	39	220.00
Cuttings	...	...	...	...	...	...	...	...	...	...	...	...
Total	10	294.79	...	...	16	297.00	326	276.77	55	267.47	407	276.86
January 1926.												
1st Class	...	...	...	...	...	...	816	274.64	74	290.68	890	274.54
2nd "	...	...	...	...	...	...	23	220.00	...	...	23	220.00
Cuttings	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	839	273.14	74	290.68	913	274.56
February 1926.												
1st Class	...	...	...	...	...	...	803	263.69	80	269.71	883	262.42
2nd "	...	...	...	...	...	...	53	210.56	77	251.22	130	236.57
Cuttings	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	856	279.16	157	262.24	1,013	276.54
March 1926.												
1st Class	...	...	...	...	...	...	935	277.92	88	273.48	1,023	277.48
2nd "	...	...	...	...	...	...	52	206.15	23	244.49	75	216.68
Cuttings	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	987	274.14	111	266.27	1,098	273.34

No. 94.

Statement showing Orders booked for each month from June 1925 to March 1926.

HEAVY RAILS—FIRST CLASS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
June 1925	4,297	127.53	55	156.00	...	...	...	...	4,352	127.91
July	1,572	122.67	5	145.00	...	...	...	...	1,577	122.71
August	11,591	127.72	1	145.00	...	...	2	145.00	11,594	127.74
September	250	129.61	7	157.00	...	...	...	...	257	129.93
October	414	122.50	24	145.00	...	...	134	153.00	572	133.36
November	863	129.93	...	...	...	...	...	...	863	129.93
December	28,621	129.98	50	145.00	...	...	...	...	28,671	130.01
January 1926	6,392	129.95	...	...	...	...	...	...	6,392	129.95
February	5,111	129.86	...	...	...	...	...	...	5,111	129.86
March	11,736	105.46	3	125.00	...	...	...	...	11,739	105.47
Total	70,847	125.19	145	148.58	...	...	136	157.77	71,128	125.30

No. 95.

Statement showing Orders booked for each month from June 1925 to March 1926.

SECOND CLASS RAILS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
June 1925	32	76.22	...	...	8	62.25	20	65.00	5	70.54	65	70.24
July	6	65.00	432	74.82	503	101.72	34	75.00	...	...	975	88.63
August . . . . .	...	...	...	...	1	75.00	61	65.00	348	65.21	410	65.20
September . . . . .	...	...	...	...	...	...	43	65.00	8	67.00	51	65.33
October . . . . .	...	...	24	65.00	133	67.78	32	82.50	384	73.56	573	72.42
November . . . . .	...	...	...	...	...	...	2	75.00	65	74.25	67	74.27
December . . . . .	...	...	76	75.00	...	...	...	...	42	65.00	118	71.32
January 1926	3	50.00	..	..	20	75.50	25	67.00	58	51.56	106	59.63
February . . . . .	...	...	...	...	40	50.00	...	...	164	63.88	204	61.16
March . . . . .	...	...	...	...	174	55.36	123	37.60	54	82.71	351	53.86
Total	41	72.31	532	74.41	679	84.10	340	57.94	1,128	68.56	2,920	73.16

No. 96.

Statement showing Orders booked for each month from June 1925 to March 1926.

FISH PLATES.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
June 1925	1.9	157.41	6	189.82	...	...	2	190.00	197	158.57
July	90	150.84	23	153.31	...	...	14	190.14	132	155.87
August	1	160.00	485	158.41	4	193.00	...	...	24	160.83	514	158.64
September	2	190.00	10	199.25	...	...	1	197.85	13	198.75
October	14	152.84	23	176.03	...	...	15	180.00	52	170.91
November	84	160.00	38	203.22	...	...	...	...	72	182.73
December	1,397	157.01	4	191.00	...	...	1	210.00	1,402	157.13
January 1926	221	159.73	6	198.73	...	...	23	164.35	250	161.17
February	252	160.75	11	181.82	...	...	1	200.00	264	162.00
March	456	166.29	10	202.92	...	...	40	157.85	506	166.27
Total	1	160.00	3,140	158.96	140	185.50	...	...	121	175.66	3,402	160.63

No. 97.

Statement showing Orders booked for each month from June 1925 to March 1926.

LIGHT RAILS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.	Quantity.	Price per ton.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
June 1925	47	133-38	...	...	39	129-98	86	131-47
July	24	137-08	...	...	386	129-00	410	129-47
August	38	135-00	84	123-35	...	...	48	128-41	170	127-73
September	148	130-46	...	...	18	135-56	166	130-61
October	203	127-77	...	...	...	...	203	127-77
November	551	134-83	...	...	...	...	551	134-83
December	116	120-71	...	...	28	120-00	144	120-58
January 1926	5	137-32	160	129-18	2	138-00	38	123-00	205	128-41
February	250	128-44	...	...	28	130-00	278	128-76
March	38	128-98	123	139-82	...	...	61	135-25	222	136-90
Total	81	131-68	1,706	131-01	2	138-00	646	129-16	2,435	130-30

No. 98.

Statement of Orders booked from June 1925 to March 1926.

TIN BARS.

Months.	Tinplate Co. of India, Ltd.	Price per ton.
	Tons.	Rs.
June 1925	610	90-00
July	480	90-00
August . . . . .	...	...
September . . . . .	...	...
October	11,250	121-61
November . . . . .	...	...
December . . . . .	...	...
January 1926	51,000	83-00
February . . . . .	...	...
March . . . . .	...	...
TOTAL .	63,340	89-98

No. 99.

Statement showing total Orders booked from June 1925 to March 1926.

HEAVY STRUCTURALS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
First Class	67	161-70	118	153-23	16,166	137-76	5,676	148-96	567	143-85	22,594	140-88
Second Class . . . . .	...	...	5	126-20	155	112-90	764	141-16	29	124-03	953	119-93
Cuttings . . . . .	...	...	..	..	63	38-01	231	53-61	40	65-00	334	52-03
TOTAL	67	161-70	123	152-13	16,384	137-14	6,671	142-47	636	137-98	23,881	138-80

No. 100.

Statement showing total Orders booked from June 1925 to March 1926.

LIGHT STRUCTURAL.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.
1st Class	71	159.76	148	156.18	8,303	141.83	4,682	135.52	1,731	129.81	14,038	138.69
2nd " . . . . .	...	...	...	...	12	50.00	576	96.84	68	121.25	656	98.51
Cuttings . . . . .	...	...	...	...	...	...	882	74.87	289	44.09	671	61.26
Total	71	159.76	148	156.18	8,318	141.70	5,640	127.42	2,088	117.67	16,265	138.87

No. 101.

Statement showing total Orders booked from June 1925 to March 1926.

Bars.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1st Class	489	160-07	741	156-71	9,604	143-92	25,952	141-25	6,901	130-55	43,687	140-62
2nd „ . . . . .	...	...	...	...	...	...	912	106-50	69	115-00	981	107-11
Cuttings . . . . .	...	...	...	...	19	40-09	3,113	77-08	285	66-58	3,417	76-00
Total	489	160-07	741	156-71	9,623	143-71	29,977	133-52	7,255	127-89	48,085	135-35

150

N. B.—Out of 9,604 tons of 1st Class Materials booked on account of Engineering Firms 2,563 tons are of Special Steel and booked at an average price of Rs. 168-03. If these tonnages are excluded, the average price for 1st Class and all Materials of Engineering Firms would be Rs. 135-14 and Rs. 134-88 respectively.

Also the total average price for 1st Class and all Materials comes to Rs. 138-91 and Rs. 133-50 respectively.

No. 102.

Statement showing total Orders booked from June 1925 to March 1926.

PLATES.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.	Tons.	Price per ton. Rs.	Tons.	Average price per ton. Rs.
First Class	94	161.62	303	162.42	15,661	139.85	1,097	147.31	505	142.74	17,660	140.90
Second Class . . . . .	...	...	...	...	16	107.75	724	110.47	124	106.59	864	109.89
Cuttings . . . . .	...	...	...	...	41	28.07	1,813	76.51	1,020	50.98	2,874	66.74
Total	94	161.62	303	162.42	15,718	139.53	3,634	104.65	1,649	83.25	21,398	129.69

No. 103.

Statement showing total Orders booked from June 1925 to March 1926.

BLACK SHEET.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
First Class	52	213-00	...	...	1,704	191-70	6,707	171-09	2,046	165-52	10,507	173-55
Second Class . . . . .	...	...	...	...	...	...	269	137-98	...	...	269	137-98
Cuttings . . . . .	...	...	...	...	...	...	2,173	62-10	1,747	31-56	3,920	48-49
Total	52	213-00	...	...	1,704	191-70	9,149	144-23	3,793	103-82	14,696	139-54

No. 104.

Statement showing total Orders booked from June 1925 to March 1926.

GALVANISED PLAIN SHEETS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1st Class	2	305'00	8	318'75	2,097	301'20	56	299'35	2,163	301'12
2nd „
Cuttings	56	167'14	...	...	56	167'14
TOTAL	2	305'00	8	318'75	2,153	297'71	56	299'35	2,219	297'78

No. 105.

Statement showing total Orders booked from June 1925 to March 1926.

GALVANISED CORRUGATED SHEETS.

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1st Class	10	294.79	2	300	36	280.47	7,016	285.63	689	286.16	7,753	285.70
2nd „ . . . . .	...	...	...	...	...	...	313	210.16	219	235.46	532	220.57
Cuttings . . . . .	...	...	...	...	...	...	559	64.31	117	96.41	676	69.56
TOTAL	10	294.79	2	300	36	280.47	7,888	266.95	1,025	253.87	8,961	265.55

No. 106.

Statement showing total Orders booked from June 1925 to March 1926.

GALVANIZED SHEETS (PLAIN AND CORRUGATED COMBINED).

	Government.		Railways.		Engineering Firms.		Dealers.		Miscellaneous.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1st Class . .	10	294.79	4	302.50	44	287.43	9,113	289.21	745	287.43	9,916	289.05
2nd " . .	...	...	...	...	...	...	313	210.15	219	235.46	532	220.57
Cuttings . .	...	...	...	...	...	...	615	73.67	117	96.41	732	77.31
TOTAL	10	294.79	4	302.50	44	287.43	10,041	273.54	1,081	256.22	11,180	271.92

No. 107.

Statement showing C. I. F. Prices from May 1925 to April 1926.

	Cont. Beams.	Brit. Beams.	Brit. Angles.	Cont. Angles.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
May 1925 . . .	6 9 0	9 0 0	9 0 0	6 15 0
June „ . . .	6 9 0	8 15 0	8 15 0	6 13 0
July „ . . .	6 7 6	8 8 0	8 8 0	6 12 0
Aug. „ . . .	6 7 0	8 3 0	8 5 0	6 11 6
Sept. „ . . .	6 3 0	8 1 8	8 1 8	6 7 6
Oct. „ . . .	6 0 0	7 15 6	7 15 6	6 5 0
Nov. „ . . .	5 16 0	7 10 3	7 10 3	6 6 0
Dec. „ . . .	5 13 6	7 8 9	7 8 9	6 1 0
Jan. 1926 . . .	5 16 0	7 8 9	7 8 9	6 3 6
Feb. „ . . .	5 16 6	7 8 9	7 8 9	6 3 6
March „ . . .	5 15 0	7 6 3	7 6 3	6 2 0
April „ . . .	5 14 0	7 5 0	7 5 0	6 1 6

	Brit. Bars.	Con. Bars.	Brit. Plates ½" & up.	Cont. Plates ¾" & thicker.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
May 1925 . . .	9 12 6	6 15 0	9 12 6	8 0 0
June „ . . .	9 10 0	6 13 0	9 10 6	7 17 0
July „ . . .	9 9 0	6 12 0	9 10 6	7 17 0
August „ . . .	9 9 0	6 11 6	9 4 0	7 11 0
September „ . . .	9 8 0	6 7 6	9 4 0	7 4 0
October „ . . .	9 5 0	6 5 0	9 1 6	7 0 0
November „ . . .	9 2 6	6 6 0	8 10 0	6 17 0
December „ . . .	8 12 6	6 1 0	8 2 6	6 7 0
January 1926 . . .	8 7 6	6 3 6	8 2 6	6 8 0
February „ . . .	8 7 6	6 3 6	8 2 6	6 8 0
March „ . . .	8 7 6	6 2 0	8 2 6	6 6 0
April „ . . .	8 7 6	6 1 0	8 2 6	6 6 0

Statement showing C. I. F. Prices from May 1925 to April 1926—
contd.

	British G. C. S. 24 G.	Brit. Black Sheets.	Cont. Black Sheets.
	£ s. d.	£ s. d.	£ s. d.
April 1925	17 12 6	13 0 0	11 6 0
May "	17 12 6	13 17 6	11 6 0
June "	17 7 0	12 12 6	11 6 0
July "	17 3 0	12 5 0	11 5 0
Aug. "	17 3 0	11 12 6	11 5 0
Sept. "	17 9 0	11 12 6	11 2 0
Oct. "	17 12 0	11 7 6	10 16 0
Nov. "	17 12 0	11 7 6	10 8 0
Dec. "	17 16 0	11 5 0	9 19 0
Jany. 1926	17 15 0	10 12 0	10 0 0
Feby. "	17 7 0	10 12 0	10 0 0
Mar. "	17 5 0	10 10 0	9 15 0
April "	17 0 0	10 8 0	9 12 0

No. 108.**THE JAMSHEDPUR TECHNICAL INSTITUTE.***Notes on Institute Results.*

The following Statements show to what extent the Technical Institute is supplying Indians for employment by the Tata Iron and Steel Company in the more expert and responsible class of work.

Of the students admitted in 1921 and 1922, fifty per cent. successfully completed the course and, being found satisfactory by the Company, have been given contracts. In some cases they have already been awarded increments on further promotion to more responsible positions. In addition six per cent. have been accepted by the Company but without a contract and forty-four per cent. have resigned or were discharged during their training. A few of this last class have been employed in secondary positions.

Taking into account the nature of the work and the standard of efficiency required, this percentage of successes is very satisfactory and it is higher than was originally anticipated. Moreover the contracted men are building up an encouraging reputation which undoubtedly justifies the system adopted.

Enclosure (1).

THE JAMSHEDPUR TECHNICAL INSTITUTE.

Statement showing the Designation and Work of the Students who were recruited in 1921 for Metallurgical Apprenticeship and completed the course.

Name of Plant.	Name of Student.	Designation on Contract.	Actual Working Job.
Blast Furnace	M. M. Ghosh	Probationer Furnace Practitioner.	Asst. Shift Foreman.
	S. M. Murtaza	Do.	Do.
	N. K. Chakraburty K. M. Choudhury	Do. Not contracted	Do. Probationer Asst. Foreman.
Open Hearth	S. P. Singh	Second Hand	Second Hand.
	M. B. Chatterjee	Do.	Do.
	B. P. Tewary	Do.	Do.
Bessemer	S. N. Ghosh	Bessemer Blower Foreman.	Vessel Foreman, Bessemer Plant.
Rail Mill West	A. Samad	Probationer Foreman.	Foreman on West Plant Mill.
	B. N. Chakraburty	Probationer Roller.	Asst. Roller Rail Mills, West.
New Blooming Mill	S. Sen	Probationer Foreman.	Asst. Foreman East Plant Mills.
Metallurgical Department	M. D. Kapila	Metallurgist	General Investigation and Inspector.
Inspection Department	S. Sambasivan	Chief Inspector	Chief Inspector.
Transferred Mysore Distilleries Contract	D. V. Krishna Rao B. K. T. Iengar		

Enclosure (2).

Statement showing designation and work of the Students who were recruited in 1922 as Metallurgical Apprentices and completed the Course.

Name of Plant.	Name of Student.	Designation on Contract.	Actual Working Job.
Coke Ovens .	U. N. Das Gupta .	Probationer Foreman.	Special work under General Foreman Coke Ovens.
Blast Furnace .	S. R. Mitter . .	Probationer Furnace Practiceman.	Assistant Foreman.
	D. K. Mazumdar .	Do.	Do.
Open Hearth .	T. M. Menon . .	Second hand Smelter.	Second hand.
Bessemer . .	J. M. Bhusrey . .	Bessemer Probationer.	Asstt. to Blower, Bessemer Plant.
	P. L. Das	Do.	Do.
Duplex Plant .	V. D. Talwar . .	Second hand Smelter.	Second Helper Duplex Plant.
	A. R. Sharma . .	Do.	Do.
Blooming Mill .	M. P. Rao	Probationer Mill Foreman.	Assistant Foreman.
	Govind Kumar . .	Do.	Do.
Sheet Bar & Billet Mill	R. Prasad	Probationer Mill Foreman.	Assistant Foreman.
Metallurgical Department .	D. K. Biswas . . .	Metallurgist . .	General Investigation and Assistant Metallographe.
Inspection Department	J. N. Singh	Not Contracted .	Inspector.
	Mohd. Isa	Do.	Do.
Technical Institute	S. N. Roy	Probationer Foreman.	Lecturer, Technical Institute.
Transferred Messrs. Bird & Co. Contract .	H. N. Mukherjee .		

Enclosure (3).

THE JAMSHEDPUR TECHNICAL INSTITUTE.

Statement showing working position of 3rd year men who will complete their Apprenticeship on 31st October, 1926.

Name of Department.	Name of Student.	Designation.	Job.
Open Hearth	A. K. Sen . . .	Technical Instt. Apprentices.	Probationer Second Helper.
	M. P. Tewary . . .	Do.	Do.
	N. C. Chakraburty . . .	Do.	Do.
	P. N. Mukherjee . . .	Do.	Do.
	B. N. Mitter . . .	Do.	Do.
Bail Mill, East	S. P. Tripathy . . .	Do.	Assistant Roller.
	Sunity K. Roy . . .	Do.	Do.
Sheet Mill . . .	Sisir K. Roy . . .	Do.	Assistant Roller.
	A. S. Natarajan . . .	Do.	Do.
	S. Dandapany . . .	Do.	Do.
	M. Z. Ahemed . . .	Do.	Do.
Metallurgical Department	N. B. Sinha . . .	Do.	General Investigations. (Foundry).
	S. C. Chakerburty . . .	Do.	Annealing & Heat Treatment.
	A. K. Roy . . .	Do.	Boiler Plant Tests.
	L. S. Saran . . .	Do.	Heat Treatment.
	D. N. Khanna . . .	Do.	General Investigations.

Enclosure (4).

Statement showing the allotment of Technical Institute Men to the various department in The Tata Iron & Steel Company's Works.

Name of Plant.	Admitted in 1921.	Admitted in 1922.	Admitted in 1923.	Admitted in 1924 and repeater.	Admitted in 1925.	TOTAL.
Coke Ovens . . . . .	...	1	...	1	2	4
Blast Furnace	4	2	...	1	2	9
Open Hearth (West)	3	1	5	11	5	25
Bessemer	1	2	...	...	...	3
Duplex Plant . . . . .	...	2	...	1	1	4
Rail Mill (West)	2	...	...	2	1	5
Bar Mill (West) . . . . .	...	...	...	1	1	2
Blooming Mill	1	2	...	...	4	7
Rail Mill (East) . . . . .	...	...	2	1	...	3
Sheet Bar & Billet Mill . . . . .	...	1	...	...	2	3
Sheet Mill . . . . .	...	...	4	2	...	6
Merchant Mill . . . . .	...	...	...	1	3	4
Special Metallurgical Work	1	1	5	...	...	7
Inspection Department	1	2	...	...	...	3
Technical Institute . . . . .	...	1	...	...	...	1
	13	15	16	21	21	86

The above statistics include 3 men who were started in a lower grade without a contract after completing the Course.

Enclosure (5).

The Jamshedpur Technical Institute.

PROVINCIAL LIST.

Province.	Admitted in 1921.	Admitted in 1922.	Admitted in 1923.	Admitted in 1924.	Admitted in 1925.	Total.
Bihar & Orissa	7	4	7	6	8	32
Bengal	2	4	5	5	4	20
Assam . . . . .	...	1	...	1	...	2
United Provinces	1	...	...	1	1	3
Madras	1	2	2	3	2	10
Central Province	1	...	1	...	1	3
Punjab	1	4	1	3	4	13
Bombay . . . . .	...	...	...	2	1	3
	13	15	16	21	21	86
Received Tata's Contract						25
Received outside Contract						3
Accepted without a Contract						3
Under training						58
Resigned or Discharged						25
Total Admitted 1921-1925						114

Percentage of Successes based on the number of admissions and the total number of men actually receiving a contract = 50% in 1924 and 1925, no account being taken of men accepted for employment without a regular contract.

Rolled Steel.

V.—Questionnaires issued by the Tariff Board to the Railway Board and Railways.

Rails and fishplates.

1. Please state the quantities and the price per ton of—

- (a) British,
- (b) Continental, and
- (c) Indian rails and fishplates

purchased by $\frac{\text{your railway}}{\text{the Railway Board}}$ for each year from 1921-22 to 1925-26. In the case of Continental rails and fishplates, please distinguish the country of origin.

N.B.—1. For rails and fishplates purchased in India, please distinguish between those purchased under contract with the Tata Iron and Steel Company and others.

2. For British and Continental rails and fishplates, kindly state where possible the sterling f.o.b. prices and the charges for freight, landing, etc., separately. If this is not possible, kindly state the c.i.f. price in sterling.

2. What do you estimate as the probable consumption by $\frac{\text{your railway}}{\text{the Railway Board}}$ of rails and fishplates to be debited to—

- (a) Capital
- (b) Revenue

account during the next five years?

3. Have you entered into any contracts for the supply of rails and fishplates from 1926-27 onwards? If so, please give full particulars of such contracts stating especially their duration, the quantities contracted for, the price fixed under the contract and the country of origin.

4. (a) If you have purchased or propose to purchase Continental rails and fishplates, kindly state fully the considerations which have influenced you in doing so.

(b) What specifications, if any, are prescribed for the Continental rails and fishplates which you purchase? Are any arrangements made for the inspection of such rails and fishplates during manufacture? What arrangements are made for the testing of rails and fishplates in the country of origin and in India?

5. What has been your experience in regard to the quality of rails and fishplates manufactured in Great Britain, on the Continent and in India respectively?

6. To what extent would the annual capital or revenue expenditure of your railway be increased by every increase of Rs. 5 in the present duty of Rs. 14 per ton on rails and fishplates, assuming that the price was increased to the full extent of the duty?

7. On the assumption that the Steel industry establishes a case for the continuance of protection and that the payment of bounties will not enable the industry to secure the prices for rails contemplated by the scheme of protection, have you any views as to the form in which protection should be given?

VI.—Replies to questionnaires regarding rails and fishplates.

1: RAILWAY BOARD.

Letter, dated the 8th June 1926.

In continuation of this office telegram No. 3435-S., dated 21st May 1926, I am directed to reply to questions 3, 4, 5 and 7 of the questionnaire sent with your letter No. 210, dated 7th May 1926, as follows:—

3. There is a pre-existing contract with Messrs. the Tata Iron and Steel Company for the supply of rails and fishplates to State-worked railways during the year 1926-27. The contract came into force from 1st April 1920 and will terminate on the 31st of March 1927. The total quantity of rails and fishplates which the company was to supply during the period of the contract was 300,000 tons, and the prices fixed per ton f.o.r. Tatanagar for requirements during 1926-27 are as follows:—

	Per ton.
	Rs.
For rails 50 lbs. section and upwards	130
For rails 40 lbs. section up to 49 lbs.	140
For rails below 40 lbs. section	155

The price per ton of fishplates in all cases to be the price per ton for the rail section to which they belong increased by Rs. 30.

4. (a) No continental rails or fishplates have been purchased by the Railway Board on behalf of the State-worked railways.

(b) The specifications laid down for rails and fishplates for State-worked railways are the same whatever the source of supply. A copy of each one of these specifications* is enclosed herewith. For arrangements made for inspection and testing of rails and fishplates, attention is invited to paragraphs 8, 14, and 15 of the specification for rails and paragraphs 9 and 12 of the specification for fishplates.

No further test of either rails or fishplates is carried out after receipt in India.

5. The quality of rails ordered for the State-worked railways has been generally satisfactory, but Tata's rails have not been in use for a sufficiently long time for a definite opinion to be recorded about their wearing qualities as compared with foreign rails.

7. The Railway Board feel some difficulty in answering this hypothetical question, more especially as they are not aware of the conditions in which it is suggested that a bounty system might fail to enable the steel industry to secure the prices for rails contemplated by the scheme of protection. All they can say is that they would be averse to any scheme which by raising the charges to railways, would re-act adversely on the cost of transportation.

* Not printed.

2. ASSAM BENGAL RAILWAY COMPANY, LIMITED.

Letter, dated the 3rd June 1926.

With reference to your letter No. 210, dated the 7th May 1926, I beg to give below the information required in the questionnaire:—

Item 1 (a), (b) and (c).

Only rails and fishplates of Indian origin have been purchased since 1921. These have been purchased from the Tata Iron and Steel Company under contract.

The quantities and rates are—

1921-24	. Nil.
1924-25	. 2,445 tons rails at Rs. 125 per ton f.o.r. Tatanagar. 52 tons fishplates at Rs. 155 per ton f.o.r.
1925-26	. Rails 41½ lbs. 3,155·00 tons rails at Rs. 125 per ton f.o.r. Tatanagar. 73·00 tons fishplates for above at Rs. 155 per ton f.o.r. Tatanagar.

No other rails and fishplates have been purchased.

Item 2.

I am unable to give any definite statement of our requirements of rails and fishplates for the next 5 years for Capital works.

Perhaps a figure equivalent to 50 miles of 50 lbs. rails per year might be given, 3,042·00 tons rails and 167·00 tons fishplates.

For Revenue work our requirements will be negligible considering the stock in hand amounting to only a few tons fishplates, say 10 tons.

Item 3.

We have not entered into any contracts from 1926-27 onwards.

Item 4 (a) and (b).

We have not purchased any Continental rails or fishplates and do not propose purchasing any unless we find considerable difference in price.

Item 5.

We have no experience of Continental rails, but as between British and Indian rails we consider rails of British manufacture distinctly superior.

Item 6.

This depends on the figures under item (2). If these are taken as correct the answer to this question is—

For Capital for each Rs. 5 of extra duty=Rs. 20,545.

For Revenue for each Rs. 5 of extra duty=Rs. 50.

Item 7.

I have no particular views on this point.

3. MADRAS AND SOUTHERN MAHRATTA RAILWAY COMPANY,
LIMITED.

Letter, dated the 14th June 1926.

With reference to the questionnaire sent with your letter No. 210, dated the 7th May 1926, relating to the purchase by this Railway of rails and fishplates from 1921-22 to 1925-26, I have the honour to reply as follows:—

I (a) Purchases made in England.

Year.	Rails.		Rate.		Fishplates.		Rate.	
	T.	C. Q. lbs.	£	s. d.	T.	C. Q. lbs.	£	s. d.
1921-22	Nil		Nil		Nil		Nil	
1922-23	4,016	15 1 27	7	10 0	130	10 0 4	10	10 0
1923-24	3,775	11 0 3	9	2 3	125	11 0 18	9	2 3
	1,887	11 1 5	5	15 0	62	9 2 6	12	15 0
	949	3 3 0	8	5 0	25	6 0 23	11	5 0
1924-25	Nil		Nil		Nil		Nil	
1925-26	Nil		Nil		Nil		Nil	

The rates given are f.o.b. England and do not include incidental charges.

(b) Nil.

(c) I give below the quantity of rails and fishplates of different sections purchased by this Railway from Messrs. The Tata Iron and Steel Company of Jamshedpur against six years' contract from 1921-22 to 1925-26 with the rate per ton noted against each.

Year.	Rails.		Fishplates.		REMARKS.
	Tons.	Tons.	Tons.	Tons.	
1921-22	9,911	291			Cost of rails is Rs. 122-8 and fishplates is Rs. 152-8 per ton delivered f.o.r. Tata-nagar.
1922-23	12,793	376			
1923-24	13,832	406			
1924-25	19,256	563			
1925-26	15,870	465			

II. The probable consumption of rails and fishplates of different sections during the next five years will be as follows:—

Year.	Rails.		Fishplates.	
	Tons.	Tons.	Tons.	Tons.
1926-27	15,384	444		
1927-28	13,697	396		
1928-29	13,315	388		
1929-30	14,213	415		
1930-31	13,376	398		

III. The arrangements for 1926-27 supply are:—

	Rails.	Rate per ton.	Fishplates.	Rate.
	T. C. Q. lbs.	£ s. d.	T. C. Q. lbs.	£ s. d.
Home supply . . .	13,404 1 0 11	6 8 6	444 2 2 7	10 8 6
Tata's supply . . .	1,980 0 0 0	Rs. 105 per ton rails only.		...

IV. (a) and (b) Nil.

V. Tatas rails are found to be inferior to English rails.

VI. Rs. 75,000 of which Rs. 11,000 Capital and Rs. 64,000 Revenue.

VII. We have no special proposals.

4. BOMBAY, BARODA AND CENTRAL INDIA RAILWAY COMPANY,
LIMITED.

Letter, dated the 11th June 1926.

As desired in your letter No. 210 of 7th May 1926, I beg to send herewith seven copies of the replies to the questionnaire relating to the purchase by the Bombay, Baroda and Central India Railway of rails and fishplates.

Answer (1).

1. (a) Rails 90 lbs.

Cost.

	Quantity.	F. O. B. rate per ton.	Freight Insurance, etc. per ton.	Customs, landing and dock charges per ton.
		£ s. d.	£ s. d.	Rs. A. P.
1921-22	Nil.	...	...	...
1922-23	Nil.	...	...	...
1923-24	5,255 tons.	8 5 0	1 0 10	18 6 0
1924-25	Nil.	..	...	..
1925-26	Nil.	...	..	...

Cost per ton landed in Bombay at Rs. 15 per £1 is Rs. 158 per ton.
Rails 50 lbs.

	Quantity.	F. O. B. rate per ton.	Freight Insurance, etc. per ton.	Customs, landing and dock charges per ton.
		£ s. d.	£ s. d.	Rs. A. P.
1921-22	1,682 tons.	8 8 9	1 5 4	17 14 10
1922-26	Nil.	...	...	...

Cost per ton landed is approximately Rs. 163-8-0 per ton.

Fishplates 50 lbs., 90 lbs., 69 lbs.

	Quantity.	F.O.B. rate per ton.	Freight Insurance, etc. per ton.	Customs, landing and dock charges per ton.
	Tons.	£ s. d.	£ s. d.	Rs. A. P.
1921-22 Fishplates	101	12 10 0	1 2 0	30 4 3
1922-23 „	208	9 12 6	1 7 6	19 12 8
1923-24 „	Nil.	..	...	...
1924-25 „	452	12 15 0	0 18 8	18 15 11
1925-26 „	100	11 2 6	0 18 7	14 0 5

1. (b) No continental rails were purchased.

1. (c) Indian rails and fishplates purchased from the Tata Iron and Steel Company under contract.

	RAILS 90 LBS.		FISHPLATES 90 LBS.		RAILS 60 LBS.		FISHPLATES 60 LBS.	
	Quantity.	Rate F.O.B. Tata- nagar.	Quantity.	Rate F.O.B. Tata- nagar.	Quantity.	Rate F.O.B. Tata- nagar.	Quantity.	Rate F.O.B. Tata- nagar.
	Tons.	Rs. A. P.	Tons.	Rs. A. P.	Tons.	Rs. A. P.	Tons.	Rs. A. P.
1921-22	4,562	122 8 0	508	152 8 0	...	...	77	152 8 0
1922-23	6,540	122 8 0	424	152 8 0	3,235	122 8 0	142	152 8 0
1923-24	1,415	122 8 0	...	..	4,550	122 8 0	151	152 8 0
1924-25	6,442	122 8 0	172	152 8 0	1,045	122 8 0	58	152 8 0
1925-26	14,463	122 8 0	531	152 8 0	5,544	122 8 0	238	152 8 0

Answer (2).

90 lbs. rails.

Year.	RAILS.			FISHPLATES.		
	Tons.	Capital.	Revenue.	Tons.	Capital.	Revenue.
		Rs.	Rs.		Rs.	Rs.
1927-28	8,371	1,38,678	10,02,088	614	16,481	24,531
1928-29	5,496	3,03,064	4,09,323	379	20,514	42,075
1929-30	7,212	5,47,404	4,09,293	327	34,127	19,800
1930-31	2,869	3,89,612	4,675	135	20,898	1,320
1931-32	34	...	4,675	8	...	1,320

60-lbs. rails.

	Rails.	Fishplates.
1927-28	5680	250
1928-29	5680	250
1929-30	5680	250
1930-31	5680	250
1931-32	5680	250

Capital 32 per cent. Capital 55 per cent.
 Revenue 68 per cent. Revenue 45 per cent.

Answer (3).

Contract for rails and fishplates for 1926-27 placed with Messrs. Tata Iron and Steel Company no forward contracts have been made as yet.

Answer (4).

No continental rails and fishplates have been purchased.

Answer (5).

The Chief Engineer reports as follows:—

“ I have the honour to report that Tata rails lying on the same stretch of track on the C. R. section as post war (1924) English rails have been examined along with the English Rails. The only difference noticeable is that the Tata rails when laid on the outside of curves shows evidence of a slight flow of the metal of the head on the running side. Such flow in the case of English rails has only been noticed in one or two isolated cases. When laid on the straight Tatas and Post war English rails are equally satisfactory. It would appear that Tata rails show evidence of a soft skin but that in other respects they are sound.”

The Engineer-in-Chief reports as follows:—

“ All our rails have been purchased from Messrs. Tata & Co. in India during the last 5 years. They have not been found to be as good as English pre-war rails. Some English rails purchased in 1919-20 from Messrs. Dorman Long & Co. were found to be no better than the Tatas—we have no experience of any other English rails as none manufactured. Continental rails are not used on this system.”

Answer (6).

If the rails are purchased from Messrs. Tata Iron and Steel Co. the extra custom duty will not directly affect this Railway. If however the future supplies of rails are imported the annual capital and revenue expenditure will be increased as follows for every increase of Rs. 5 in the present duty.

Year.	Capital.	Revenue.	TOTAL.
	Rs.	Rs.	Rs.
1927-28	29,630	44,445	74,075
1928-29	23,610	35,415	59,025
1929-30	26,938	40,407	67,345
1930-31	17,868	26,802	44,670
1931-32	11,944	17,916	29,860

Answer (7).

No remarks.

5. BENGAL NAGPUR RAILWAY COMPANY, LIMITED.

Letter, dated the 14th June 1926.

With reference to your letter No. 210, dated the 7th May 1926, I beg to enclose my replies to the questionnaire of the Tariff Board in regard to the purchase of rails and fishplates.

1. Please see statements "A" and "B" enclosed.

2. Capital—

	Miles.
1926	26
1927	50
1928	113
1929	43
1930	The demand is not yet known.

Mixed Capital and Revenue 50 miles per annum, the allocation between Capital and Revenue cannot be determined at present.

3. No.

4. (a) During 1924-25, 4,243 tons of rails were purchased from Germany.

The purchase was made by my Board of Directors in London and I am not aware of the considerations which influenced their doing so. It was presumably a question of price.

(b) A copy of the specification of the rails referred to enclosed in 4 (a), above. The rails were tested at the works by a representative of our Consulting Engineers, Sir John Wolfe Barry and Partners. No further test was considered necessary in India.

5. The quality of rails and fishplates supplied from Great Britain is good. The German rails have been laid on a newly constructed branch which has not yet been opened for traffic and consequently we are not in a position to report on them.

As regards Tata's rails, a few cases have been reported of rails corroding quickly and these are under investigation by the Metallurgical Inspector at Tatanagar, but the quality of the steel in general is good. The chief complaint is that the sections are not as accurately rolled as British sections.

6. Roughly Rs. 49,000 Capital and Rs. 31,000 Revenue per annum. This answer, of course, assumes that Indian Manufacturers would advance their prices to the full corresponding extent.

7. I can suggest no way by which the desired result can be secured.

Enclosure I.

Statement showing rails and fishplates purchased in India during the years 1921-22 to 1925-26.

Year.	Source of supply.	Materials.	Quantity.	Rate.	Unit.	Delivery.	REMARKS.
			Tons.	Rs. A. P.		F. O. E. Jamshedpur.	
1921-22 . . .	The Tata Iron & Steel Co.	Rails 90 lbs.	14,145	110 0 0	per ton.		Purchased against 5-year contract with the Tata Iron and Steel Co.
	Ditto	Fishplates 90 lbs.	617	140 0 0	"	"	
1922-23 . . .	Ditto	Rails 90 lbs.	14,357	110 0 0	"	"	
	Ditto	Fishplates 90 lbs.	600	140 0 0	"	"	
1923-24 . . .	Ditto	Rails 90 lbs.	12,617	110 0 0	"	"	
	Ditto	Rails 75 lbs. B. S.	2360-15	110 0 0	"	"	
1924-25 . . .	Ditto	Rails 90 lbs.	8580-20	110 0 0	"	"	
	Ditto	Rails 75 lbs. B. S.	6,400	110 0 0	"	"	
1921-22 . . .	Ditto	Rails 90 lbs. II Class	63-65	110 0 0	"	"	
	Ditto	Fishplates 90 lbs.	2-65	140 0 0	"	"	
1923-24 . . .	Ditto	Rails 41½ lbs.	11-05	120 0 0	"	"	
	Ditto	Fishplates 41½ lbs.	0-25	140 0 0	"	"	
1924-25 . . .	Ditto	Rails 41½ lbs.	184-15	120 0 0	"	"	
	Ditto	Fishplates 41½ lbs.	4-10	140 0 0	"	"	
	Ditto	Rails 90 lbs. II Class	269-00	77 0 0	"	"	
	Ditto	Rails 90 lbs. I Class	7,496	140 0 0	"	"	
1922-23 . . .	Messrs. Henry Williams	Anti-Impact Fishplates 90 lbs.	15,000	9 8 0	per pair	"	
1923-24 . . .	Ditto	Ditto 75 lbs. B. N.	10,560	9 0 0	"	"	
" . . .	Ditto	Ditto 75 lbs. B. S.	23,000	9 0 0	"	"	
" . . .	Ordnance Factory, Ichapur.	75 lbs. B. N. old type Fishplates	3,839	8 12 0	"	"	
1924-25 . . .	Messrs. Henry Williams	Anti-Impact Fishplates 90 lbs.	45,453	9 8 0	"	"	
		Ditto 75 lbs. B. S.	3,186	8 0 0	"	"	
		Ditto 75 lbs. B. N.	8,850	8 12 0	"	"	
		Ditto 85 lbs.	3,450	8 8 0	"	"	

Enclosure II.

Statement showing Rails and Fishplates purchased abroad during the years 1921-22 to 1925-26.

Year.	Source of supply.	Materials.	Quantity.		RATES PER TON.			
					Price F. O. B.	Freight and insurance.	Duty.	Landing charges.
			lbs.	tons.	£ s. d.	£ s. d.	Rs. A. P.	Rs. A. P.
1922-23	Guest, Keen and Nettlesfolds.	Rails	90	8,486	7 10 0	1 0 11	...	3 2 0
		Fishplates	90	865½	10 10 0	1 0 11	...	3 2 0
		Rails	90	2,268	7 10 0	1 0 11	...	3 2 0
		Fishplates	90	97½	10 10 0	1 0 11	...	3 2 0
		Rails	90	7,067½	7 10 0	1 0 11	...	3 2 0
		Fishplates	90	101½	7 10 0	1 0 11	...	3 2 0
1924-25	Bochumer Verein, Germany	Rails	90	4,243	6 10 0	0 16 10	11 0 0	3 2 0
1925-26	Cargo Fleet Iron Co.	Rails	40	632	7 0 0	0 19 4	11 15 0	3 2 0
		Fishplates	40	21	12 12 6	1 1 11	20 9 0	3 2 0

Enclosure III.

Specification for 90 lbs. rails supplied by the Bochumer Verein, Germany.

Chemical composition.—The steel and the rails shall conform to the following limits of chemical composition:—

	OPEN HEARTH.		Bessemer, Acid.
	Acid.	Basic.	
Carbon	0.45 to 0.55	0.45 to 0.60	0.40 to 0.50.
Manganese	0.90 (max) .	0.90 (max) .	0.70 to 1.00.
Silicon	0.15 (max) .	0.15 (max) .	0.15 (max).
Phosphorus	0.06 (max) .	0.05 (max) .	0.07 (max).
Sulphur	0.06 (max) .	0.06 (max) .	0.07 (max).

Deflection test.—One piece of rail 6 feet long will be taken from every 50 tons of rails manufactured, placed on iron bearings 3 ft. 6 ins. apart in the clear, and equidistant from its ends, and a weight of 30 tons will be suspended from the centre of the rail. The deflection under this weight, measured on the distance between the centres of the bearings, must not exceed one-fourth of an inch after the weight has been on the rail half an hour. No permanent set must appear upon the removal of the load.

Falling weight test.—The same piece of rail will be supported as before and a tup weighing one ton will be allowed to fall freely upon the centre of the rail from a height of 26 ft. the rail shall bear two such blows without showing the least sign of fracture. The permanent set caused by the first blow shall not exceed $3\frac{1}{2}$ ins. and the total deflection of the rail, measured on the distance between the centres of the bearings, after both blows have been given, shall not exceed $7\frac{1}{2}$ ins. The rail shall then be broken by further blows, and shall show perfectly sound and homogeneous fracture of such a character as shall be satisfactory to the Company's Engineer.

Tensile test.—From a sample rail selected by the Company's Engineer out of every 100 tons or part of 100 tons of rails rolled, the Contractor shall, if required by the Company's Engineer, prepare a tensile test piece which shall be stamped to correspond with the sample rail. The test piece shall be broken in a testing machine of approved pattern, and shall show a tensile breaking strength of not less than 40 tons and not more than 48 tons per square inch, with an elongation of not less than 15 per cent. using British Standard Test Piece C or D. Should the test pieces fail to fulfil these conditions, the Company's Engineer may require the Contractor to test two other rails from the same cast in the same manner, and the acceptance or rejection of the cast shall be decided by the results of the three tests, so that if two of three rails selected fail to comply with the test the entire cast will be rejected.

Rejection.—If any rail tested fails to comply with any of the tests given above, the cast to which it belongs will be rejected.

6. EAST INDIAN RAILWAY.

Letter, dated 8th June 1926.

With reference to your letter No. 210, dated 7th May 1926, regarding the questionnaire relating to the purchase by this Railway of rails and fishplates, I beg to reply as follows:—

- I. The attached list in the five sheets furnishes all the informations required.
- II. The following is the estimate showing the probable anticipated consumption of rails and fishplates during the next five years on this Railway debitable to Capital and Revenue:—
- | | | |
|-------------|------------------|---|
| (a) Capital | { (a) Rails | } Information not available yet. |
| | { (b) Fishplates | |
| (b) Revenue | { (a) Rails | } 88½ lb. B. H. 6160 tons per year. |
| | | |
| | | 90 .. F. F. 63892 during 1927-28 |
| | { (b) Fishplates | } No. 102340 for 1927-28. |
| | | } No. 26488 for each of the next 4 years. |
- III. Orders have been placed on Messrs. The Tata Iron and Steel Company for 4,620 tons of 88½ lbs. B. H., E. I. R. Standard section rails and 203 tons of fishplates as also 5,179 tons of 90 lbs. F. F. New British Standard section rails and 160 tons of fishplates. The rails are priced at Rs. 130 per ton and the fishplates at Rs. 160 per ton as contracted for by the Secretary of State for India in his Agreement entered into on 7th August 1920 with Messrs. The Tata Iron and Steel Company. The period covered by this agreement is seven years commencing 1st April 1920. No further forward contracts have been entered into by me.
- IV. (a) No Continental rails were purchased during 1921-22 to 1925-26 and I am not aware of any future intention to purchase Continental rails.
- (b) The question does not arise.
- V. Rails and fishplates manufactured in India have only been in use since 1916 and it is therefore not possible to draw any useful comparison between them and rails manufactured in Great Britain. But as far as I can judge they appear to be satisfactory.
- VI. Had the present duty of Rs. 14 per ton been increased by Rs. 5 per ton the debit to Revenue in 1924-25 would have been increased by Rs. 534 and the debit to Capital in 1925-26 by Rs. 62,683.
- VII. I have no views to offer with regard to the protective duties to be imposed.

Enclosure 1.

For the year 1921-22.

Country of origin.	Section.	Quantity.	Price per Ton. F. O. B.	Charges per Ton.
		Tons cwt. lbs. ozs.	£ s. d.	Rs. A. P.
	<i>Indent No. 104.</i>			
	75 lbs. D. H.	500 0 0 0	9 5 0	19 3 2
	74 „ F. F.	500 0 0 0	9 5 0	19 8 8
	90 „ „	1,500 0 0 0	9 5 0	19 8 8
	93½ „ „	1,200 0 0 0	9 5 0	19 9 3.
	<i>Indent No. 147.</i>			
	100 lbs. F. F.	7,857 0 0 0	9 4 6	19 8 0.
	Fishplates	444 13 3 14	14 4 6	39 0 0.
	<i>Indent No. 164.</i>			
England	38½ lbs. B. H.	11,141 0 0 0	8 10 0	30 14 1.
	100 „ F. F.	11,000 0 0 0	7 17 6	29 6 5.
	Fishplates	508 14 0 16	12 10 0	36 8 0.
		620 11 1 18	12 0 0	35 12 0
	<i>Indent No. 180.</i>			
	75 lbs. D. H.	500 0 0 0	7 16 0	29 9 7
	74 „ F. F.	500 0 0 0		28 6 10
	90 „ „	1,500 0 0 0		28 14 5
	93½ „ „	500 0 0 0		29 2 11

Enclosure 2.

For the year 1922-23.

Country of origin.	Section.	Quantity.	Price per Ton. F. O. B.	Charges per Ton.
	<i>Indent No. 219.</i>	Tons cwt. lbs. ozs.	£ s. d.	Rs. A. P.
England .	74 lbs. F. F. .	500 0 0 0	8 7 6	29 9 1

Enclosure 3.

For the year 1923-24.

Country of origin.	Section.	Quantity.				Price per Ton.	Charges per Ton.
		Tons	cwts.	lbs.	ozs.	£ s. d.	Rs. A. P.
England	<i>Indent No. 290.</i>						
	88½ lbs. B. H.	10,424	0	0	0	8 11 3	13 8 7*
	Fishplates	155	7	3	12	8 11 3	13 7 0*
	<i>Indent No. 291.</i>						
	88½ lbs. B. H.	300	0	0	0	8 11 3	13 2 3*
	74 „ F. F.	500	0	0	0	8 11 3	13 9 10
	Fishplates	14	6	1	0	8 11 3	13 7 0*
	<i>Indent No. 292.</i>						
	88½ lbs. B. H.	960	0	0	0	8 11 3	13 2 3*
	Fishplates	25	11	0	18	8 11 3	13 7 0*
	<i>Indent No. 293.</i>						
	88½ lbs. B. H.	350	0	0	0	8 11 3	13 2 3*
	Fishplates	15	16	3	19	8 11 3	13 7 0*
	<i>Indent No. 294.</i>						
	88½ lbs. B. H.	210	0	0	0	8 11 3	13 2 3*
	Fishplates	9	6	0	7	8 11 3	13 7 0*
	<i>Indent No. 295.</i>						
	88½ lbs. B. H.	1,400	0	0	0	8 11 3	13 2 3*
	Fishplates	62	7	0	26	8 11 3	13 7 0*
	<i>Indent No. 299.</i>						
Fishplates	201	18	0	19	8 11 3	13 7 0*	

* Duty free.

Enclosure 4.

For the year 1924-25.

Country of origin.	Section.	Quantity.	Price per Ton. F. O. B.	Charges per Ton.	
		Tons cwts. lbs. ozs.	£ s. d.	Rs. A. P.	
India	<i>Indent No. 347.</i>				
	88½ lbs. B. H.	500 0 0 0	}	115 6 9	
	75 „ D. H.	500 0 0 0			
	74 „ F. F.	500 0 0 0			
	90 „ „	1,500 0 0 0			
	93½ „ „	250 0 0 0			
	Fishplates	20 8 8 20		155 0 0	
	<i>Indent No. 348.</i>				
	88½ lbs. B. H.	1,400 0 0 0	..	115 6 9	
	Fishplates	61 10 3 14	..	155 0 0	
	<i>Indent No. 349.</i>				
	88½ lbs. B. H.	2,517 0 0 0	..	115 6 9	
	Fishplates	120 0 1 18	..	155 0 0	
	<i>Indent No. 404.</i>				
	90 lbs. F. F.	2,751 0 0 0	..	115 6 9	
	Fishplates	120 0 1 18	..	155 0 0	
	<i>Indent No. 405.</i>				
	88½ lbs. B. H.	9,848 0 0 0	..	115 6 9	
	Fishplates	507 16 0 17	..	155 0 0	
	<i>Indent No. 415.</i>				
90 lbs. F. F.	1,014 0 0 0	..	115 6 9		
Fishplates	43 15 2 2	..	155 0 0		

Enclosure 5.

For the year 1924-25.

Country of origin.	Section.	Quantity.	Price per Ton. F. O. B.	Charges per Ton.
		Tons cwts. lbs. ozs.	£ s. d.	Rs. A. P.
	<i>Indent No. 417.</i>			
India	90 lbs. F. F.	545 0 0 0	..	115 6 9
	Fishplates	23 10 1 2	..	155 0 0
	<i>Indent No. 427.</i>			
Germany	90 lbs. F. F.	12,028 0 0 0	7 13 6	11 11 9
	Fishplates	523 2 3 10	7 13 6	9 9 0

7. EASTERN BENGAL RAILWAY.

Letter, dated the 21st June 1926.

With reference to your letter No. 210, dated 7th May 1926, I enclose herewith a statement containing information required by the Tariff Board concerning rails and fishplates.

1. (a) and (b) No British or Continental rails and fishplates were purchased by the Eastern Bengal Railway from the year 1921-22 to 1925-26.

(c) Rails and fishplates have been purchased from Messrs. The Tata Iron and Steel Co., Ltd., Tatanagar, under contract with the Railway Board. Annexure 'A' shows the purchases of rails and fishplates year by year from 1921-22 to 1925-26.

N.B.—1. No purchase of Indian rails and fishplates was made from any firm other than the Tata Iron and Steel Company from the year 1921-22 to 1925-26.

2. Reply to question 1 (a) and (b) may be referred to.

2. Annexure B shows the probable consumption of rails and fishplates to be debited to (a) Capital, (b) Revenue, during the next 5 years, viz., 1927-28 to 1931-32.

3. No.

4. (a) No Continental rails have been purchased from the year 1921-22 to 1925-26 nor is it proposed to purchase such rails in the future.

(b) Kindly see reply to 4 (a) above.

5. This Railway has had enquiries made but is unable to record any useful comparisons between Tata's and postwar English rails, that is to say, rails that this Railway has had in the road for any time have not been subjected to conditions sufficiently similar to make comparison of any value.

6. Annexure C shows the extent of increase in the Capital and Revenue expenditure if the duty per ton is increased by Rs. 5 on rails and fishplates supplied by Tatas.

7. No views to express.

ANNEXURE A.

Purchase of rails and fishplates by the Eastern Bengal Railway from 1921-22 to 1925-26.

Year.	RAILS.		FISH PLATES.	
	Tons.	Rate per ton.	Tons.	Rate per ton.
...	...	Rs. 130 up to 30th September 1921.	...	Rs. 160 up to 30th September 1921.
1921-22	5,352	Rs. 156 up to 31st March 1922.	308.46	Rs. 186 up to 31st May 1922.
1922-23	3,306	Rs. 156 per ton	134.32	Rs. 186 per ton.
1923-24	2,990.62	„ 156 „	77.32	„ 186 „
1924-25	351.11	„ 130 „	99.00	„ 160 „
1925-26	12,259	„ 130 „	160.95	„ 160 „

ANNEXURE B.

Probable consumption of rails and fishplates to be debited to Capital and Depreciation during the next five years, viz., 1927-28 to 1931-32.

	Capital. Rs.	Depreciation. Rs.
1927-28	12,00,000	1,18,000
1928-29	10,71,000	1,06,000
1929-30	15,29,000	66,000
1930-31	9,02,000	66,000
1931-32	11,75,000	89,000

ANNEXURE C.

Statement showing extent of increase in the Capital and Revenue Expenditure if the duty per ton is increased by Rs. 5 on rails supplied by Tatas.

In the year 1927-28 the probable consumption of rails and fishplates has been estimated at—

	Capital.	Depreciation.
Rails	8,803 tons at Rs. 130 per ton = Rs. 11,44,260	862 tons at Rs. 130 per ton = Rs. 1,12,060
Fish-plates	353 tons at Rs. 160 per ton = Rs. 56,320	35 tons at Rs. 160 per ton = Rs. 5,600
	9,152 tons	897
	12,00,680	1,17,660
Say	12,00,000	1,18,000

Now by the increase of duty by Rs. 5 the Capital and Depreciation Expenditure of Eastern Bengal Railway for 1927-28 for rails and fishplates will be increased by—

	Rs.
Capital 9,152 × 5	45,760, i.e., 3.8 per cent.
Depreciation 897 × 5	4,485, i.e., 3.8 per cent.

8. GREAT INDIAN PENINSULA RAILWAY.

Letter, dated the 15th June 1926, giving replies to questionnaire regarding rails and fishplates.

In reply to your letter No. 210, dated the 7th May 1926, I send you here-with my answers to the questionnaire relating to the purchase of rails and fishplates by this Railway Administration.

1 (a) British rails and fishplates supplied on Home indent during 1921-22 to 1925-26 are as follows:—

Year.	Description.	Tons.	Rate per ton.	F. O. B.	Freight per ton.
			£ s. d.		£ s. d.
1921-22	Rails	4,761	7 18 0	Cardiff .	1 0 0
	Fish-plates	207	11 10 0	Do. .	1 0 0
1922-23	Rails	7,577	7 18 0	Do. .	1 0 0
	Fish-plates	300	7 11 3 13 10 0	Glasgow . Do. .	1 0 0 1 0 0
1923-24	Rails	14,741	7 13 9	Middles- brough.	0 16 0
	Fish-plates	516	11 13 9	Do. .	0 16 0
1924-25	Rails	809	8 13 9	Do. .	0 16 0
	Fish-plates	1,427	9 18 6	Do. .	0 16 0
1925-26	Rails	785	9 13 6	Do. .	0 16 0
	Fish-plates	21	11 17 6	Do. .	0 16 0

(b) Continental rails and fishplates supplied on Home indent as under:—

Year.	Description.	Tons.	Rate per ton.	F. O. B.	Freight per ton.
			£ s. d.		£ s. d.
1925-26	Rails	4,274	6 19 6	Antwerp .	0 17 0
	Fish-plates	138	9 0 0	Do. .	0 17 0

(c) Indian rails and fishplates were purchased from Tatas during 1921-22 and 1925-26 as follows:—

Year.	Description.	Tons.	Rate per ton.
			Rs.
1921-22	Rails	1,976	128
1922-23	Nil . . . . .		...
1924-25	Rail	10,183	130
1925-26	Fish-plates		324	160

2. Rails and fishplates required during the next 5 years are as under :—

	Capital.	Revenue.
	Tons.	Tons.
Rails	43,871	1,100
Fishplates	1,359	41

Such contracts are entered into by the Railway Board with Tatas.

3. (a) Indents for rails and fishplates were hitherto sent to the late Great Indian Peninsula Railway Home Board. In 1925 the Home Board placed an order on a firm in Belgium for 4,274 tons of rails and 138 tons of fishplates. Tatas were unable to meet the demand and the order was arranged by indent on Home. The Railway Board in their letter No. 1705 S-XVI, dated the 20th May 1926, directed that no restriction should be placed on Continental manufacture as the High Commissioner is generally guided by business principles of accepting the lowest possible tender.

(b) See answer No. 2 above. Arrangements are made by the Railway Board.

4. From Great Britain, satisfactory; from the Continent, rails recently received, and experience insufficient; and from India, satisfactory.

5. The increased annual expenditure would be as under :—

Year.	Description.	Tons.	Capital.	Tons.	Revenue.
			Rs.		Rs.
1926-27	Rails	8,856	45,695	1,100	5,705
	Fish plates	283		41	
1927-28	Rails	23,991	1,23,640	...	...
	Fish plates	737			
1928-29	Rails	11,024	56,815	...	...
	Fish plates	339			

6. This should be referred to the Railway Board.

9. SOUTH INDIAN RAILWAY COMPANY, LIMITED.

Letter, dated the 22nd June 1926.

I have the honour to subjoin my replies to the questionaire enclosed with your letter No. 210 of the 7th May 1926.

1. Statement shewing the quantities and the price per ton of rails and fish-plates purchased by the South Indian Railway (Open Line) during the last 5 years commencing from 1921-22 :—

Year.	RAILS.		FISH PLATES.		Country of origin.
	Tons.	C. I. F. Price per ton.	Tons.	C.I.F. Price per ton.	
1921-22	11,065	Rs. 139-1-2 or £9-1-3	589	Rs. 163-1-11 or £11-18-8	British.
1922-23	1,727	Rs. 138-9-8 or £9-11-6	78	Rs. 225-5-3 or £15-11-4	Do.
1923-24	167	Rs. 154-2-5 or £9-16-7	11	Rs. 220-12-11 or £14-14-5	Do.
1924-25	2,260	Rs. 143-8-0	...	.....	Indian (Tatas).
1925-26	2,963	Rs. 143-8-0	116	Rs. 146-0-0	Do.
1925-26	1,218	Rs. 143-13-6 or £9-11-10	365	Rs. 204-14-7 or £13-13-3	British.

2. Statement shewing the probable consumption of rails and fishplates by the South Indian Railway, Open Line (including Remodelling and Madras Improvements) and Construction, during the next five years commencing from 1927-28 is given below :—

Year.	RAILS.			FISH PLATES.		
	OPEN LINE.		CONSTRUCTION.	OPEN LINE.		CONSTRUCTION.
	Capital.	Revenue.	Capital.	Capital.	Revenue.	Capital.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 . . .	1,035	3,915	21,764	88	149	993
1928-29 . . .	635	4,228	16,501	25	159	637
1929-30 . . .	16	2,448	12,745	1	92	406
1930-31 . . .	149	3,576	17,000	6	137	682
1931-32 . . .	149	3,576	8,758	6	137	266

3. No.

4. (a) No rails and fishplates are purchased from the continent.

(b) Does not arise.

5. The rails and fishplates manufactured in Great Britain are giving satisfactory service.

With regard to those purchased in India it is too early to submit a report as they have not been in the line sufficiently long.

6. The extent to which annual Capital expenditure will be increased by each Rs. 5 increase in duty is as under :—

	Rs.
1927-28	1,39,470
1928-29	1,10,900
1929-30	78,540
1930-31	1,07,750
1931-32	64,460

7. I have no remarks to offer.

VII.—Questionnaires issued by the Tariff Board to the Railway Board and Railways.

Other Steel.

1. The various classes of steel and wrought iron materials other than rails and fishplates on which protective duties are at present imposed are as follows:—

Rolled steel (including beams, angles, channels, plates, bars and rods, sheets black and galvanized).

Wire and Wire-nails.

Tinplates.

Fabricated steel.

Kindly state, as far as possible, the quantities and prices of each of these classes of material purchased by your railway for each year from 1921-22 to 1925-26 distinguishing the country of origin. For purchases made in Great Britain and on the Continent, kindly state, as far as possible the sterling f.o.b. price and the charges for freight, landing, etc., separately. If this is not possible, kindly state the c.i.f. price in sterling.

2. To what extent has the annual capital or revenue expenditure of your railway been increased by the imposition of the protective duties? Has the imposition of the duties affected your purchases of the various classes of material? To what extent is their maintenance at the present level likely to affect your future purchases?

3. What do you estimate as the probable consumption of the various classes of material by your railway during the next five years?

4. Have you entered into any contract for the supply of any of these classes of material from 1926-27 onwards? If so, please give full particulars of such contracts stating especially their duration, the quantities contracted for, the prices fixed under the contract and the country of origin?

5. If you have purchased or propose to purchase any of the materials mentioned above on the Continent, kindly state fully the considerations which have influenced you in doing so.

6. What has been your experience in regard to the quality of any or all of these materials manufactured in Great Britain, the Continent and India respectively?

VIII.—Replies to questionnaires regarding other Steel.

1. RAILWAY BOARD.

Telegram, dated 21st May 1926.

3434-S. Your letter 217 of 8th May Questionnaire regarding purchase steel materials other than rails and fishplates. Question four no contract has been entered into. Suggest to avoid delay information relating to other questions be obtained direct from Agents of State Worked railways.

2. ASSAM BENGAL RAILWAY COMPANY, LIMITED.

Letter to the Tariff Board, dated the 26th June 1926 giving replies to questionnaires regarding steel materials other than rails and fishplates.

With reference to your letter No. 217, dated the 8th May 1926, I have the honour to forward herewith for your disposal a copy of my Superintendent of Stores' letter No. M.-50-D., dated the 15th June 1926, and enclosure containing replies to the questionnaire relating to the purchase of the above and to say that I am in general agreement with it.

COPY.

ASSAM BENGAL RAILWAY COMPANY, LIMITED.

(Incorporated in Great Britain.)

OFFICE OF THE SUPERINTENDENT OF STORES.

Pahartali, $\frac{14^{\text{th}}}{15^{\text{th}}}$ June 1926.

Ref. No. M.-50-D.

To

THE AGENT.

Dear Sir,

Purchase of steel material other than rails and fishplates.

Your No. 36/18 of 13th May 1926.

1. With reference to the questionnaire from the Tariff Board sent under cover of your above, I enclose herewith statement giving the quantities and prices of each of the classes of material asked for purchased during the year 1922 to 1925 inclusive. The Tariff Board ask to distinguish the country of origin. I have not been able to do this as to obtain the information will mean that each local purchase order will have to be looked up which I can only do for the years 1924 and 1925 as all copies of orders are destroyed after two years. It is almost impossible to give the information asked for with any degree of accuracy however much time is spent in trying to collect same. It is common knowledge that a large proportion of the bars and rods at any rate, that are marketed in Calcutta are of Continental origin which are often sold under the name of British manufacture. Against this we have no protection as, with the exception of Messrs. The Tata Iron and Steel Company, I know of no manufacturer who brands small sections of bars and rods. During the years under review we have made practically no purchases direct either from Great Britain or the Continent of any of the items mentioned with the exception of fabricated steel details of which are given in attached statement and also spring steel. Since 1924 all spring steel sections are of British manufacture bought through Firms in Calcutta or direct from Home. As all these bars are stamped we can rely on them being of the make they purport to be. Previous to this date we obtained certain sections of spring steel from Messrs. Tatas. I had however cause to complain of their sections not being rolled dead to size and after correspondence on the subject the Firm wrote that they were afraid that it was not of any use trying to supply steel flats to our satisfaction the work being outside their ordinary lines.

2. To-day Messrs. The Tata Iron and Steel Company do not under-quote British and Continental rollings so that the annual capital and revenue expenditure of this Railway has been increased by the full amount of the protective duties imposed.

As far as revenue is concerned the imposition of the duties has not affected our purchases as revenue repairs must be carried out whatever price iron and steel is being marketted at.

As regards capital those constructions and capital works which have been sanctioned have to be supplied with iron and steel. As to whether further capital works would have been sanctioned if the rate for steel sections had been lower I am not in a position to state but with the Railway Board demanding us to show a return of 6 per cent. on capital outlay before they will sanction same the impositions of the duties must affect our purchases.

The conclusion of the answer to the preceding question I think covers the reply to the question as to what extent is the maintenance of the duties at the present level likely to affect our future purchases. If we can show a return of 6 per cent. presumably the constructions will be sanctioned, if we cannot they will not, so that every increase in the price of iron and steel reduces the number of constructions sanctioned. To what extent however I am unable to give even an approximate estimate.

3. If the Railway Board will lay down a complete construction programme for the next five years we might possibly estimate with some degree of accuracy. Without this information it seems futile to give any estimate. Our normal consumption for the next five years excluding constructions might be taken as the average for the year 1925.

4. We have not entered into any contracts for the supply of any of the classes of material from 1926-27 onwards.

5. Please see reply to paragraph 4.

6. We have not knowingly purchased from the Continent any of the materials mentioned and as far as I am aware do not propose to do so. Messrs. Tatas rollings when to B. S. S. are good enough for our general run of work but the fact of their turning out material other than to B. S. S. does not afford that feeling of security that I consider we are entitled to when dealing with a bounty-fed Company. We know that sections turned out by the well-known British Firms are absolutely reliable and are always up to the weight and specification of the section. I specially mention this as have come across two instances in which angle iron sections of Continental rolling have been found on weighment not to be to the weight of the section it is being sold under.

Yours faithfully,

Sd. E. W. THOMAS,

Ag. Superintendent of

Stores.

Statement of purchase of Steel material other than Rails and Fishplates.

Description.	1922.		1923.		1924.		1925.	
	Quantity.	Amount.	Quantity.	Amount.	Quantity.	Amount.	Quantity.	Amount.
	Cwt.	Rs.	Cwt.	Rs.	Cwt.	Rs.	Cwt.	Rs.
1. Beams	736	6,628	1,287	11,563	1,623	14,604	840	7,350
2. Angles and Tees	576	5,476	414	3,933	1,189	10,525	925	7,839
3. Channels	152	1,370	48	434	72	578	92	782
4. Plates including black sheets	639	6,397	249	2,492	443	3,767	566	4,534
5. Bars and rods (Flats, round and square)	2,143	19,687	1,275	11,684	2,408	20,800	2,495	21,209
6. Bars (Spring steel) purchased in India	889	12,223	531	7,308	362	4,126	988	11,208
6a. Bars (Spring steel) purchased direct from England.	<i>Nil.</i>	...	<i>Nil.</i>	...	400	5,994	360	3,972
7. Sheets galvanized both corrugated and plain	660	11,924	1,060	18,806	1,160	19,918	1,440	22,479
8. Wire and wire nails (iron only)	360	21,171	260	8,312	245	5,748	387	11,308
9. Tin plates	Sheets. 1,914	2,614	Sheets. 1,816	2,353	Sheets. 943	377	Sheets. 868	899
10. Fabricated steel purchased in India	Cwt. 1,580	28,387	Cwt. 8,120	1,39,664	Cwt. 2,580	40,635	Cwt. 8,720	1,24,696
10a. Fabricated steel purchased direct from England.	2,160	24,943	<i>Nil.</i>	<i>Nil.</i>	2,360	31,152	16,880	1,94,120

Note.—English rates for fabricated steel do not include duty.

3. GREAT INDIAN PENINSULA RAILWAY.

Letter to the Tariff Board, dated the 24th June 1926.

Herewith the answers of this Administration to the above questionnaire. It is, however, only an interim reply dealing with structural steel and iron work.

2. The compilation of information in regard to miscellaneous steel and iron materials is of some magnitude and answers for this class will follow.

3. We are electrifying a part of our line in the vicinity of Bombay for which a certain amount of steel material has been, and will be, used: I have referred the questionnaire, so far as it relates to our electrification, to our Consulting Electric Engineer's and will let you hear further.

NOTE.—This is an interim answer dealing with normal structural steel and ironwork. A further reply will follow in regard to miscellaneous steel material and steel material for electrification.

Answers to Questionnaire issued by the Tariff Board with their letter No. 217, dated the 8th May 1926.

Steel Materials (other than rails and fishplates).

1. Structural steel and ironwork.

Period.	Quantity Tons.	Cost, including freight.	Incidental Charges.	Duty.
		£	£	£
1921-22	2,393	84,923	450	...
1922-23	627	17,496	33	...
1923-24	357	6,347	131	623
1924-25	264	2,786	58	568
1925-26	1,472	22,459	174	2,473

All the above was purchased in Great Britain except 190 tons valued at £2,712 from Germany in 1925-26.

2. The amount of duty is shown in the statement. The imposition of duty has not affected our purchases as the material was for bridges and necessary practically regardless of price. Future purchases of steel will be affected only to a very small extent by maintenance of duties at present level, since it is not possible to substitute any other kind of construction except to a very small extent.

3. About 40,000 tons of steel work for bridges. A large quantity will be required in addition for electrification, of which no details are available at present. As tenders will be called for simultaneously in England and India in future, it is not possible to say whether steelwork will be imported as rolled steel or fabricated steel. So far we have had no experience of heavy bridge work manufactured in India and do not know whether Indian firms can compete with English and Continental firms.

4. No contracts have been entered into for the supply of structural steel and ironwork material from 1926-27 onwards.

5. 190 tons of steelwork was purchased in Germany during 1925-26. The order was placed by the High Commissioner for India, presumably because the rate was more favourable than those tendered by English firms.

6. In regard to rolled sections the English are best; Indian rank second and Continental come third. Some of the Continental material is, of course, inferior, but the best is up to British Standard Specification. The workmanship in the 190 tons of steelwork referred to in questions 1 and 5 from Germany was sound but the finish was not so good as English. As regards structural steel manufactured in India, of which we have purchased only for small sheds, etc., the workmanship of some is nearly up to English standard, but some of the work was very poor.

IX.—General representations regarding the manufacture of Rolled Steel.

1: THE INDIAN IRON AND STEEL COMPANY, LIMITED.

Representation, dated the 14th May 1926.

With reference to the Tariff Board's Communiqué, dated April 16th, 1926, we desire to represent that as this Company was formed with the ultimate object of manufacturing steel and as we have already made considerable progress in this direction by the successful operation of large modern blast furnaces, coke ovens and bye products plants, we are considerably interested in and in favour of the continuance of the protection now given to the Steel Industry in this country.

We will not attempt to quote figures proving the necessity for the continuance of the protective duties and bounties now granted as we feel the Tariff Board will have the fullest possible information at their disposal from the actual operations of the Tata Iron and Steel Co., Ltd., over the last few years and which data will be far more reliable evidence than anything of this nature that we can put forward.

We do wish, however, to represent very strongly the necessity for granting sufficient and ample protection to the industry to enable not only the Tata Iron and Steel Co., Ltd., to consolidate its position after having been protected by the war *plus* duties and bounties for eleven years but to enable other Companies to raise the necessary capital to lay down steel producing plant.

We consider that the present policy of granting tariffs and bounties for short periods of 2 or 3 years amounts to the grant of a monopoly to the Tata Iron and Steel Co., Ltd., as no capitalist will risk his money in competitive ventures under such conditions, and that this policy will result in the consumer having to pay prices only fractionally lower than the import price when the Tata Iron and Steel Co., Ltd., have at last become strong enough to withstand foreign competition without governmental aid.

Considering the country's natural resources, we feel confident that in a period of 10 to 15 years and given internal competition the Industry will be in a position not only to withstand foreign competition but also to bring prices to the European level and that it will be possible to build up an export trade; but so long as the manufacture of steel is in the hands of a single firm the danger of monopoly prices will always exist.

We consider therefore that it is imperative for the Government of India to grant full necessary protection to the Steel Industry for a minimum period of 10 years from April 1st, 1927 and the tariffs to be levied and/or the bounties to be paid be decided by Tariff Board enquiries to be held annually for this purpose alone.

2. MESSRS. BIRD AND COMPANY.

Representation, dated the 15th May 1926.

In November 1923 Mr. E. S. Tarlton gave evidence before your Board on behalf of Messrs. Bird and Company, as representing the United Steel Corporation of Asia Limited. But, already, before that time the Directors of the Company had decided to suspend operations because the prospects of raising capital for the scheme in the then state of the money market were unfavourable.

It was thought that the enquiry into the question of protection to the Steel Industry would result in measures of protection, either by bounties or duties, being provided for a number of years, and that such a decision by the Legislature would produce favourable conditions for the flotation of a new Steel Company equipped with modern up to date plant.

But the short term put to the Steel Industry Protection Act (XIV of 1924) combined with the rise in exchange and the drop in prices of imported steel have made it impossible to regard the market conditions as favourable at any time during the two years since the Act was passed.

The subsequent enquiry by the Tariff Board in July/September 1925 and their recommendations which brought about further supplementary protection for steel in the form of a bounty on ingots was of no assistance towards a new Company, because the additional benefits will expire with the original assistance, that is, at the end of March 1927.

The Tariff Board have notified the opening of further enquiry under Clause 6 of Act XIV on the question of the continuation of protection for the steel industry, and we submit this note in response to their announcement.

The estimates for the Tuscal Scheme were prepared in 1922, we have not had the figure revised since then. Before the scheme could be brought forward every detail of Capital cost and working expenses would have to be re-examined, and full advantage taken of the latest developments in plant and machinery for the manufacture of steel. But in view of the reduced prices at which machinery and structures are being sold as compared with 1923 we contemplate that the Capital cost of the Steel Works would be considerably lower than our original estimate.

Also we should expect to save some Ra. 46 lakhs in capital outlay on coal mines and limestone quarries, because we should arrange long term contracts for coal and limestone based on a sliding scale according to the world price of pig iron. We should be able to do this on good terms through concerns which are working under our control.

We regret we are unable to give details now of revised figures of initial expenditure and working costs, as it would be impossible without a complete re-examination by our Technical Advisers at home, but we know that the Tariff Board have at their disposal much information on the possible reductions in prices of the raw materials in India and on the lower costs at which the Tata Steel Works expect to manufacture. Also the Board are fully aware of the continuance of the competition of imported steel due to the fall in prices of both British and Continental materials. Thus they are in a position to judge of the need for protection or otherwise, without receiving revised details of a problematical scheme.

For our part we are satisfied that there is a market in India for the output of another Steel Works, we are satisfied as to the ample supply of all the raw materials, we know that India cannot make full use of her vast resources of high grade iron ore without the erection of further Steel Works, and it has been shown at Jamshedpur that Indian artisan labour can be trained to work on furnaces and Mills.

Therefore the one thing wanting for new works is a reasonable prospect of financial success.

Our intention with Tuscal was to make it an Indian Company, with Rupee Capital, and a directorate in Calcutta with a proportion of Indian Directors and this would be obligatory under Act XIV of 1924, but whether the Com-

pany was floated in the United Kingdom or in India the success of the flotation would entirely depend on the measure of protection ensured for the Company's output.

Our financial advisers in India explain the situation thus. The money market is tired of ventures in Iron and Steel. Large Capital losses have accrued to individuals from the present depressed prices of stock in such concerns. The big investors are not attracted by a proposition that will pay no interest at all during four years of construction, or will pay perhaps some small rate out of Capital. The fact that Government paper and such investments have lately risen in India to an unprecedented figure points to there being large sums of money available for investment, but is by no means an indication that such money would be invested in a big industrial venture like Steel Works unless the financial success of the Company was very solidly assured.

We agree with these views and if the Board desire to obtain confirmation of them they will doubtless take the necessary steps to obtain further evidence on this aspect of the problem.

As regards the measure of protection necessary to assure financial success: we do not propose to give detailed figure, these could only be estimates such as were given in 1923, and as already stated revised figures would necessitate the re-examination of every detail of the Tuscal scheme, whereas the Board will have before them actual figures from the Jamshedpur works, showing the reduction in production costs which have been affected by increased output, new plant, lowering of the price of raw materials and stringent economies in every branch of production. The measure of protection required to assist the Tata Steel Works would be sufficient for new works such as Tuscal even on the smaller output contemplated in the first stage of our scheme.

But when the period for the duration of protection is considered, we are on an entirely different footing to the Tata Steel Company. The Tariff Board and the Government of India also through the Legislature, may consider it suitable to carry on the protective policy by short periods such as three years, insisting that the subject shall be re-examined again towards the end of such period, again be re-voted upon by the Legislative Council.

Such a policy would be of no use for a new Company. It would require approximately 4 years to construct new steel works from the time of starting, and 6 years for them to be working in full swing and under the advantages of full output and smooth organisation, therefore a duration of protection for at least 8 years would in our opinion be necessary to secure success in putting the scheme upon the market. We are confident that a fixed period of 10 years would insure the financial success of our scheme, and 8 years might make it possible, anything less would be useless.

The question therefore becomes this, does the Indian Legislature desire to see India profiting from its mineral resources and pushing ahead with the production of its own steel, and if so, will it grant the protection necessary?

We wish to be most emphatic that on the answer to this question depends the formation of another Steel Works. Without a guarantee for a long period a flotation would meet with no success.

We have thus announced our views on the broad question of policy. If the Tariff Board desire any further information in the form of oral evidence, we shall be very pleased to attend.

3. MESSRS. KIRLOSKAR BROTHERS, LIMITED.

Representation, dated the 12th May 1926.

Please find enclosed herewith a copy of our representation.

Representation of Messrs. Kirloskar Brothers, Limited, about the maintenance of duty on steel.

The position of our concern which requires a great quantity of mild steel bars for its use has been considerably affected since the levy of duty on steel in March 1924.

In order to bring to the notice of the members of the Board the position of our concern, it is necessary that the members of the Board are given to understand the additions we made to our manufacturing line since 1924.

At the time when the Board was making inquiries in the year 1923, the Board of Directors of our Company had deputed the Works Superintendent to Europe to study the line of manufacturing bolts and nuts and purchase a complete plant of manufacturing bolts and nuts which are sold in thousands of tons all over India. Accordingly we purchased a complete plant of bolts and nuts having a capacity to produce one ton of nuts and bolts per day and costing about Rs. 1,57,568-11-3 in all and began manufacturing nuts and bolts since the beginning of the year 1925.

The position of the steel market at the time of levy of duty was that mild steel bars could be had at Rs. 7 per cwt. and the nuts and bolts could be had at Rs. 21 or Rs. 22 per cwt. or in other words, the proportion of the prices of mild steel to that of nuts and bolts was in a ratio of 1 to 3 approximately.

But since we began to manufacture nuts and bolts, there has been a considerable change in prices of nuts and bolts and those of mild steel bars. While the prices of mild steel bars have practically remained the same, the prices of nuts and bolts have gone down very considerably with the result that the proportion of mild steel to nuts and bolts is now 1 to 1½. This is mainly due to the depreciated currencies of the continental countries and the rise in exchange as well as the rise in duty on steel without any rise in duty on nuts and bolts. The above factors are placing the foreign countries at an advantage and a sort of protection is granted to the foreign manufacturers. Thus if mild steel bars can be had at Rs. 7 per cwt. the nuts and bolts can be had at Rs. 10-8 per cwt. in Bombay. Notwithstanding this exceptional position in the bolts market, our condition has been further aggravated by the adverse location of our plant, because, we are required to pay a railway freight of nearly Re. 1 per cwt. on the mild steel bars brought into our factory and one more rupee per cwt. on the manufactured nuts and bolts which we are required to take back to Bombay again for selling, it being the only large center of distribution. This alone brings the cost of our raw material approximately to the cost of the bolts and nuts in Bombay let alone the additional manufacturing costs and other expenses. This means that since the manufacturing of nuts and bolts was undertaken by us we are put to a loss of Rs. 300 to Rs. 400 per week with a consequence that we are practically required to close the department.

At the time when the Board was contemplating levy of duty on steel, we represented then that all industries which use mild steel as their raw materials should be given compensating advantages, but the Board at the time summarily disposed off our proposal and we are thus put to very heavy losses. Our main contention then was that while duty is levied on raw materials, the finished products are allowed to enter duty free in the country which is a very great handicap to the indigenous industries.

Under the circumstance, it should not be concluded from the above that we are in any way against granting any protection to the Tatas but on the contrary, we maintain that all industries which employ a large number of workmen in their factories and which are adversely affected by the foreign

competitors must, as a matter of fact, be protected and it is, we believe, the sacred duty of every national Government to see that the industries,—which it is, in the first place, very difficult to establish in India—if adversely affected should be protected.

As our production is very small, it would not be fair on our part to request the Board to levy heavy duty on imported bolts, but as we wish to keep our plant in the working order, we have to request the Board to give us the following facilities:—

- (1) that a reduction in railway freight on raw material and finished product to the extent of 75 per cent. be given;
- (2) that the Government and State Railways should place their orders with us to the extent of our capacity and this stuff should be purchased leaving a margin of 15 per cent. clear profit to the Company;
- (3) a rebate of Rs. 20 per ton in custom's duty should be given on the material purchased by us for the manufacture of nuts and bolts.

We may here bring to the notice of the Board that the quality of our products is approved by the Railway Authorities and the Assistant Controller of Stores Purchase has also inspected our factory and we, therefore, think that the railways will find no difficulty in purchasing our products.

We hope, therefore, that in view of our above explanation, the Board will be pleased to recommend to the Government to grant us the necessary relief asked for by us.

If any further information is required regarding our concern, we shall be pleased to furnish it to the Board and if any oral evidence is required, the same shall also be given by a representative of ours.

Supplementary representation from Messrs. Kirloskar Brothers, Limited, dated the 13th May 1926.

In continuation of our letters of yesterday's date and of to-day, we are herewith enclosing duplicate copies of our supplementary representation about the maintenance of duty on steel which kindly acknowledge.

Supplementary representation of Messrs. Kirloskar Brothers, Limited, about the maintenance of duty on steel.

In continuation of the representation made by us we have to add one more point to the unfair competition which we are required to meet from the foreign manufacturers.

The steamer freight from Antwerp to Bombay for one ton of bolts and nuts is 14s. only which at the present rate of exchange comes to Rs. 9-8 and for the same quantity to carry from Kirloskarvadi to Bombay, we are required to pay Rs. 18 per ton. This itself is a very great drawback and we think that if the industries in India are to be established and fostered, the railways must give them adequate facilities.

We had made similar complaints against the freights charged by railways in our representation to the Board last time but no adequate facilities are given to us and in view, therefore, of our present hard times, the Board will be pleased to grant us the facilities asked for by us.

4. MESSRS. RICHARDSON AND CRUDDAS.

Representation, dated the 3rd May 1926.

We are in receipt of your Press Communiqué, dated the 16th April, and note that the Tariff Board has been instructed to examine the question as to the extent to which the Protection of the Steel Industry of India should be continued and as to the Duties and Bounties which are necessary for the purpose of conferring such protection.

Following the order given in the Communiqué under reply we beg to put forward our views in regard to the articles in which we are interested, as follows:—

(1) *The grounds on which we consider the continuance of protection necessary in respect of.*

Rolled Steel.—We are inserted as buyers, sellers and fabricators of Rolled Steel not as makers and as you state that the general question of the fitness of the steel-making industry to receive protection cannot be re-opened, it would be of little use our expressing our views under this heading.

Fabricated Steel.—It is obvious that having decided to give protection to the Indian Steel Industry, Government must protect this industry against the importation of Fabricated as well as Raw Steel, otherwise the protection can be evaded by the importation of fully or partly fabricated steel in place of the Raw material for fabrication in this country. If, therefore, it is decided to continue the protection of the Steel Industry as a whole, it is essential to continue the protection against imported fabricated steel.

(2) *Whether we consider that the Measure of Protection now given should be increased or diminished.*

Rolled Steel.—This is a question for the Tariff Board to decide after examining the books, etc., of the Tata Iron and Steel Company, but we cannot believe that an increased protection is necessary and trust that in view of (a) the very substantial assistance already gives, (b) the greater experience gained by the Indian Steel makers, (c) the reduction in overhead expenses which must have occurred through the training of Indian staffs to replace their high salaried instructors, and (d) the very considerable increase in production, it may be found possible to diminish the protection considerably. Some reduction is all the more necessary in view of the continued trade depression in India.

Fabricated Steel.—In 1924 a duty of Rs. 30 per ton was placed upon imported Raw Steel—Beams, Angles, etc.—used for structural purposes and at the same time an “*ad valorem*” duty of 25 per cent. was placed upon imported Fabricated Steel.

Since these duties were imposed there has been a considerable fall in the price of imported steel, so that Rs. 30 per ton on the Raw Material represents a greater percentage of the imported value than it did two years ago—on the other hand the 25 per cent. duty on Fabricated Steel now affords less and less protection as prices drop.

We, therefore, maintain, as we did in 1925, that a revision of the Import Duty on Fabricated Steel is very necessary and that the ratio between the duty on Raw and Fabricated Steels must be maintained, in fairness both to the Steel making and to the Engineering Industries. This was acknowledged and recommended by the Tariff Board last year, but the Government of India did not see its way to increasing the “*ad valorem*” duty on Fabricated Steel.

We trust that this point will be pressed again and that if the Import Duty upon Raw Steel is to remain unchanged then the “*ad valorem*” duty on imported Fabricated Steel should be increased to 33½ per cent. as advocated by us last year.

If, on the other hand, it is found possible to reduce the duty on Imported Raw Steel, then the " *ad valorem* " duty upon imported Fabricated Steel must be adjusted so as to maintain the initial ratio agreed upon in 1924.

(3) *Whether any protection, which may be found necessary should be given by means of Protective Duties or Bounties.*

We are strongly in favour of the Bounty System as opposed to Protective Duties in that it does not increase the cost to the consumer, and lower costs would tend to increase the use of steel and so assist trade generally. The Bounty System also insures a stricter supervision on the part of Government who would then be directly interested in reducing the Bounties at the earliest moment.

Under the present system—a combination of Protective Import Duty and a system of Bounties—the extra revenue accruing to Government from the increased duties on Imported Steel exceeds the amounts paid out by Government in Bounties and if trade improves this excess is likely to increase. We would, therefore, advocate a reduction in Import duties on Steel of all kinds, and, if necessary, an increase in Bounties.

We have put forward our views on general lines on the questions as they affect the articles in which we are interested. We would draw your attention to our letter of the 9th July last in which our views were stated very fully.

We shall be pleased to receive your questionnaire when prepared. We shall also be glad to give oral evidence before the Tariff Board, should they visit Bombay for that purpose.

5. MESSRS. GEO. SERVICE AND COMPANY.

Representation, dated the 12th May 1926.

We thank you for forwarding us a copy of Press Communiqué, dated Calcutta, April 16th, drawing our attention to the fact that the Steel Industry (Protection) Act, 1924, provides that before the 31st March 1927 an enquiry is to be conducted as to the extent if any, to which it is necessary to continue the protection of the steel industry in this country.

1. As our interest in the Iron and Steel Industry is essentially a Merchant one, there is nothing we can put forward at this stage which has any bearing on the first part of your enquiry.

We should, however, like to express ourselves as being in favour of the present system of protection afforded by a combination of protective tariffs and bounties.

If the revenue accruing to Government under the present schedule of import duties is such that a surplus remains after payment of all bounties sanctioned we would suggest such surplus be applied to affording some reduction in the specific duty of Rs. 30 per ton on item No. 150 in the Statutory Schedule of the Import Tariff.

2. In our letter addressed to the Board, dated July 10th last, we referred to the general classification under this Statutory Schedule No. 150 of the Import Tariff. In this item "Angle and Tee, all other sorts, and Beam, Channel, Zed, Troughplate, Piling and other structural sections" "Not fabricated" are all taxed at a specific duty of Rs. 30 per ton. We should suggest this very wide classification requires some modification to exclude special plain steel sections imported specially for use by the Engineering Industries in this country. In the preparation of your questionnaire we hope this point will not be overlooked.

We shall be glad if you will furnish us with a copy of this questionnaire in due course. If any further information is desired will you kindly communicate with us; in our letter of the 8th instant we have supplied a schedule of c.i.f. prices for Continental steel from May 1925 up to April 1926.

6. CHAMBER OF COMMERCE, MADRAS.

Representation, dated the 8th May 1926.

I have the honour to acknowledge receipt of Press Communiqué, dated 16th April 1926, on the subject of the necessity or otherwise for the continuation of protection of the Steel Industry in India.

I am directed in reply to enclose copy of my letter* to you, dated 8th of September 1923, on this subject and to state that the views therein expressed still hold good.

I would specially draw your attention to paragraph 6 which reads:—

“ This Chamber is not averse to assistance of a *temporary nature* being granted to new industries *provided* the evidence obtainable justifies the belief that such industries will, if sufficiently conducted, become self-supporting within a reasonable period of time.”

It is the considered opinion of this Chamber that unless there is a reasonable hope that the Indian Steel Industry will become self-supporting in the near future, there cannot be any case for a continuation of the protection now being granted.

* See page 84 of Vol. III of the Evidence recorded during the first enquiry into the Steel Industry.

7. BURMA CHAMBER OF COMMERCE.

Representation, dated the 5th May 1926.

My Committee have read with interest your Press Communiqué, dated April 16th, 1926, in reference to the inquiry by the Tariff Board as to whether it is necessary to continue the protection of the Steel Industry and as to the duties and bounties which may be necessary for the purpose of conferring such protection.

2. In reply, I am directed to say that this Chamber has all along protested against the protective duties on steel being made applicable to Burma, *vide* my letters of September 1st and 29th, 1923, to which I would refer you. Meanwhile, I am to say that my Committee confirm the views expressed in those letters, and urge, if Protection is to be continued that bounties be substituted for protective duties.

8. INDIAN CHAMBER OF COMMERCE, CALCUTTA.

Representation, dated the 1st June 1926.

With reference to the correspondence regarding submission of Chamber's representation in regard to Board's enquiry under provisions of section 6 of the Steel Industry (Protection) Act, 1924, and ending with your letter No. 268, dated the 21st May 1926, I am directed to forward a memorandum by the Committee of the Indian Chamber of Commerce in regard to the enquiry which the Board have now in hand. The submission of the memorandum has been delayed by one day which, I am to express a hope, will kindly be overlooked by the Board.

Memorandum submitted to the Tariff Board in connection with the enquiry undertaken under provisions of section 6 of the Steel Industry (Protection) Act, 1924.

In this Memorandum the Committee of the Indian Chamber do not propose to examine generally what case there is for a continuance of the Steel Protective duties under the Steel Industry (Protection) Act, 1924 after the 31st of March 1927. That is an examination which can only be undertaken with the definite knowledge of facts and figures relative to the cost of production of the concern engaged in steel production and the prices it has been realising at the present moment and the outlook of these two positions in the future. Clearly, therefore, the Indian Chamber do not feel competent to enter into this question at this stage. There are, however, one or two questions in the nature of readjustments of the present scale of duty which the Committee of this Chamber desire to bring forward before the Tariff Board. The Committee feel that having regard to the vital importance of the proposals which will presently follow, they deserve to be considered along with the original applications submitted before the Board urging the continuance of the protective measures.

2. The Committee desire to add here one more work by way of preface. It should not be understood from the proposals conveyed in this memorandum that they are opposed to a general continuance of the protective duties after the 31st March 1927. On the other hand, they are strongly of opinion from facts generally within their knowledge that protection granted to the Steel Industry has been useful in the past and its continuance would be essentially necessary, at least for some years to come. As they have already stated, absence of definite facts and figures preclude their making any very close examination of the question and in the circumstances they merely rest content with putting forward the two specific proposals which are in the nature of amendments to the protective measures now in force.

3. It appears to the Committee that the scheme of protection hitherto in operation has been very fundamentally defective in one respect. The protective duties have been made to yield a far larger revenue than what has been or was estimated to be the requirements for protective purposes *ad hoc*. The total amount granted as bounty within the full term of Steel Industry (Protection) Act is 140 lakhs of rupees, whereas the actual revenue earned by the Government from protective duties on iron and steel has been 215 lakhs of rupees in 1924-25 and 281 lakhs of rupees in 1925-26. In other words, the consumers are being needlessly exploited far above what is legitimately required in the interest of Steel Industry. A most glaring case which strikes the Committee is that of the duty on galvanised sheets fixed at Rs. 45 per ton. The Committee of this Chamber are strongly of opinion that this heavy rate of duty admits of a distinct reduction by at least Rs. 10 per ton. The present unfortunate position of earning a plethoric revenue from protection duties arose from a grossly under-estimated import demand of galvanised sheets in this country. The Board in their last enquiry in June 1925 estimated the importation of galvanised sheets at 190,000 tons and of the current financial year at 180,000 tons. Actually, however, these figures have been

found to be very much under-estimated. The import of 1925-26 has been nearly 280,000 tons and on all calculations there seem to be little prospect of a reduced import in the current financial year. The demand for galvanised sheets which is largely consumed in Eastern Bengal by the poorer classes is particularly of an elastic nature, and lower prices is certain to augment consumption. In any case, it is the view of the Committee that an import of 250,000 tons can be safely depended on for any calculations as regards the earning of revenue from protective duties on this particular class of goods. The Committee are aware that in the last financial year the boom price of jute realised by the cultivator in the Eastern Bengal districts reflected to a certain extent on the consumption of galvanised sheets. But it is equally important to remember that India's consumption of galvanised sheets last year was affected adversely owing to famine conditions prevailing in Bombay and depression in the leading trade of the Western Presidency. At all events, the Committee are emphatically of opinion that the figure referred to above can be fully regarded as representing India's annual demand of imported galvanised sheets.

4. The Committee feel it necessary to explain here their reasons why they particularly single out galvanised sheets as the item for reduction of duty. In the first place, the demand for this class of goods is rather elastic within a certain range a fact which has already been referred to. Secondly, this is an article which is very extensively used by the poorer classes in the Eastern Bengal and thirdly and this is equally an weighty reason—the incidence of duty on galvanised sheets falls heavily on the province of Bengal which takes on an average over 60 per cent. of the imported galvanised sheets. As the facts stand to-day, the brunt of the protection is being borne by Bengal, this Province alone contributing on the single item of galvanised sheets about 75 lakhs of rupees, or in other words paying more than the amount required to be paid as bounty to the Steel Company in one year. Fourthly, the India's production of the galvanised sheets bears only a small percentage to the total consumption of the article, the bulk of which is met by foreign manufacturers. The Committee recognise that the suggested reduction of duty on galvanised sheets by Rs. 10 per ton will force the Steel Company to realise a lower price on the sale of these goods than what they have been doing at present. In full sympathy, as the Chamber is, with the principle of protection, the Committee propose an additional bounty to the Steel Company on their production of corrugated sheets to the extent of the fall in prices per ton which may follow consequent on the adoption of this proposal. On an estimated import of 2 lakhs 50 thousand tons, the revenue earned at the reduced rate of Rs. 35 per ton works out at Rs. 87.5 lakhs a figure which exceeds by about 6 lakhs the revenue to the Government on an import of 1,80,000 tons at the rate of Rs. 45 as estimated by the Board. The margin of this Rs. 6 lakhs, as would doubtless be clear should be enough for payment of an additional bounty on galvanised sheets, seeing that the total production of the Steel Company is likely to be in the neighbourhood of 20,000 tons in the near future.

5. There exists at present an unsatisfactory position in regard to the classification of black sheets for the purpose of Customs duties. The duty on black sheets falls under two classes, one being a specific duty of Rs. 30 a ton and the other an *ad valorem* duty of 10 per cent. on valuation of Rs. 200 per ton in respect of sheets of certain classes such as pickled, cold-rolled, smoked or cleaned by acid. The result has been that the merchants started importing sheets of the second category which bears a small extra cost thus escaping Rs. 10 per ton in respect of duty in such cases. On representation being made the custom authorities have adopted the principle of charging *ad valorem* duty in respect of sheets invoiced at £16 or more, otherwise classifying them for a specific duty. This change in the rate of assessment has naturally entailed losses to the merchants and it is of importance that at this stage the Tariff Board should recommend a more definite classification so that the custom authorities may have no scope for exercise of discretion in fixing the rate of duty chargeable.

9. THE INDIAN ENGINEERING ASSOCIATION.

Representation, dated the 12th June 1926.

I am directed to refer to the Tariff Board's press communiqué, dated 16th April 1926, on the subject of their further enquiry into the question of protection for the Indian steel-making industry.

2. I am to submit to you herewith, for the information of the Board, a memorandum, dated 10th June 1926 which has been prepared by the Committee of the Indian Engineering Association on the question of protection for certain branches of the engineering industry. I am to add that the Committee do not propose to offer any oral evidence to the Board in connection with this statement.

Memorandum by the Indian Engineering Association with reference to the Tariff Board's press communiqué, dated 16th April 1926.

The protection granted to the Indian steel-making industry under the provisions of the Steel Industry (Protection) Act, 1924 will cease on the 31st March 1927 unless in the meantime the Act be amended to provide for its continuance. The Act lays down that, before the date mentioned, an enquiry shall be undertaken in order to determine the extent, if any, to which it is necessary to continue to protect the industry, and as to the duties and bounties which constitute such protection. This enquiry the Government of India have commissioned the Tariff Board to undertake; and in their press communiqué the Board intimate that they are prepared to receive evidence in connection with it. They request that firms and persons interested, who wish that the protection granted by the Act should be continued after the 31st March 1927, should submit representations stating:—

- (a) The grounds on which they consider the continuance of protection necessary in respect of the articles in which they are interested;
- (b) Whether they consider that the measure of protection now given should be increased or diminished; and
- (c) Whether any protection which may be found necessary should be given by means of protective duties or bounties.

2. In reply to this request the Committee of the Indian Engineering Association submit the following representation in which they endeavour to explain the view taken by the engineering industry in regard to the question at issue. To begin with they would refer to their memorandum, dated 13th September 1923, which was written in connection with the Board's first enquiry, and in which they summarised the position of the Association in the following terms:—

- (a) That if the Tariff Board find that the steel-making industry requires protection such protection should take the form of bounties rather than of import duties;
- (b) That the engineering industries should preferably be encouraged and protected by guaranteed Government orders at competitive Indian prices rather than by import duties or bounties; but
- (c) That if State-aid in this form cannot be given then the engineering industries should be protected by import duties, or by bounties, to precisely the same extent as the steel-making industry is protected.

3. Practical experience of the protection afforded by the Act of 1924 has confirmed these views. Indeed the members of the Association are at the present time even more strongly convinced than they were in 1923 that protective duties ought not to be imposed on a raw material such as steel; and that, if the Indian steel-making industry needs protection, this should be afforded, not by duties, but by a bounty or subsidy. It follows that they would be strongly opposed to any increase in the existing duty of Rs. 30 per

ton on raw steel. For their view is that the duty ought to be withdrawn; and that a bounty should be substituted for it if protection is still necessary. If the steel-making industry is—as they consider it to be—a national industry then the general taxpayer ought to be required to bear his share of the cost of developing it. There is no valid reason why the whole burden of this cost should fall on the consumer of steel.

4. It will be for the Tariff Board, after re-examining the financial position of the one steel-making concern in the country, to decide whether the measure of protection which is now given to it should be increased or deduced. The Committee are not in possession of such information as would enable them to express an opinion on this question. But, as they pointed out in the memorandum from which I have already quoted, it would be, in their opinion, a disaster to Indian industrial development for the Tata Works to be closed. If however, an increased measure of protection is found to be necessary it ought to be afforded by enlarging the bounty and not by enhancing the duty.

5. In their communiqué the Board specify the following articles in addition to rolled steel as being within the scope of the present enquiry:—(a) tinplates; (b) wire and wire nails; (c) fabricated steel; and (d) railway wagons and carriage under-frames. The members of this Association are not directly concerned with (a) and (b); and the Committee do not propose therefore to remark upon those two articles. But the Association is deeply interested in fabricated steel, and in the manufacture of railway wagons and carriage under-frames; and with regard to these the Committee have certain comments to offer.

6. So long as the protective duty is charged on raw steel so long will it be necessary to protect fabricated steel by a corresponding duty. A bounty would not be a satisfactory substitute for a duty in such a case. At the moment the duty on fabricated steel is not on a parity with the duty on raw steel; and if the latter is to remain at Rs. 30 per ton, then the former ought to be increased. It should also be changed from an *ad valorem* to a specific duty. The case for a specific duty was set forth by the Committee in a letter, dated 2nd February 1926, to the Government of India. They quote the letter here for the information of the Board:—

“ I am directed to refer to the recommendations made by the Indian Tariff Board, in paragraphs 69, 70, 73 and 103 of their report dated 2nd September 1925, on the subject of the Customs duties to be levied on imported fabricated steel.

2. The recommendations were:—

- (a) That the protective duty on fabricated steel of kinds other than those specified under (b) and (c) below should be increased from 25 per cent. to 32½ per cent. *ad valorem*;
- (b) That the protective duty on such component parts of steamers, launches, and other vessels for harbour and inland navigation as are made of fabricated steel should remain at 25 per cent. *ad valorem*; and
- (c) That the protective duties on (1) tipping wagons; (2) coal tubs; and (3) switches and crossings adapted for use with rails under 30 lbs. per yard be increased from 25 per cent. to 40 per cent. *ad valorem*.”

3. The Committee of the Association understand that these recommendations will be debated by the Legislative Assembly during the current session. They feel therefore that they ought to take this opportunity of bringing prominently to the notice of the Government of India certain important considerations directly affecting the recommendations. During the past few months large orders for fabricated steel work have been placed with British manufacturers. The engineering firms established in India are powerless to compete for these orders by reason of the adverse circumstances which have arisen since the acceptance by the Legislature of the recommendation made by the Tariff Board in their report dated 26th February 1924.

4. The recommendation which was made by the Board in their report of the 26th February 1924 was that the duty on fabricated structural steel should be increased from 10 per cent. to 25 per cent. By their report of the 2nd September 1925 they proposed further to increase this duty to 32½ per cent. In August last, when this second recommendation was made, conditions were such as to justify the Board in recommending 32½ per cent. as sufficient. But these conditions have now so changed as to make the recommendation useless.

5. The Board based their calculations on an average value of Rs. 205 per ton for imported fabricated steel. On this basis the duty of 32½ per cent. would be the equivalent of Rs. 67 per ton. In other words, the cost of imported fabricated material would be increased from Rs. 205 to Rs. 272, as compared with Rs. 275 the cost of the locally fabricated steel. But, by reason of the continual fall in the price of steel, and by reason of the specific duty of Rs. 30 per ton on unfabricated steel, the proposed duty of 32½ per cent. is not now the equivalent of Rs. 67; and, so long as the price of steel continues to decline, the sum represented by the 32½ per cent. must of necessity continue to diminish.

6. The following tabular statement shows clearly how the Tariff Board arrived at their proposed duty of 25 per cent. in February 1924; how they arrived at their figure of 32½ per cent. in September 1925; and it also shows what the position is now:—

	February 1924.	September 1925.	January 1926.
Landed cost of material per ton excluding duty	Rs. 145 per ton.	114	100
Exchange	1s 4d.	1s. 6d.	1s. 6d.
<i>Fabricated British cost per ton—</i>			
Material plus 10 per cent. wastage.	160	125	110
Conversion	90	80	80
TOTAL	250	205	190
<i>Fabricated Local cost per ton—</i>			
Material plus 10 per cent. wastage.	160	125	110
Duty plus 10 per cent. wastage.	33	33	33
Conversion	117	117	117
TOTAL	310	275	260
Difference	Rs. 60 per ton	Rs. 70 per ton.	Rs. 70 per ton.
Duty enacted and proposed .	25 per cent.	*32½ per cent.	†35.3 per cent.
Result	Rs. 62—8 per ton.	‡Rs. 67 per ton.	‡Rs. 67 per ton.

* Proposed by Tariff Board.

† Equivalent proposition.

‡ Duty required.

7. The statement makes it clear that a duty of 32½ per cent. is not now the equivalent of Rs. 67 per ton; and that it will require an *ad valorem* duty of 35.3 per cent. on the present British cost to give the figure of Rs. 67. Of this amount a sum of Rs. 33 is to cover the specific duty on the raw material, plus wastage. As the Board explain, in paragraph 69 of their report, the

substantive protection on fabricated steel that they wanted to give was Rs. 34 per ton.

8. It must be remembered that the Board's recommendation of 32½ per cent. has not been put into force. The duty which is actually being charged at the present moment is 25 per cent. on the British c.i.f. cost of fabricated steel, namely, Rs. 190 per ton. This is the equivalent of Rs. 47·5 per ton, from which of course the sum of Rs. 33, must be deducted, leaving a net advantage of Rs. 14·5 per ton as against Rs. 34 which was, as I have stated, the margin recommended by the Board in their September report.

9. It will be evident to the Government of India that Indian manufacturers are now in serious difficulties, and that, with the cost of steel falling, their position is rapidly becoming impossible. For this state of affairs the specific duty on unfabricated steel is of course largely responsible. Everything points to a further decline in the price of steel, but the specific duty will presumably remain at Rs. 30 per ton. It follows that an *ad valorem* duty on fabricated steel is no remedy for the difficulties that the Indian Engineering firms have to face. In other words, the solution which the Board proposed last September is no solution at all to-day. But had their proposal been put into operation immediately on the submission to the Government of their report a great deal of the hardship of which the firms now rightly complain would have been avoided. The Committee feel therefore that the firms have a just cause of complaint in the matter, and they would most strongly urge that action should be taken immediately. It is obvious that what is wanted is a specific duty on fabricated steel. The rate should be, on the figures quoted above, Rs. 70 per ton; but the Committee have taken the figure of Rs. 67 in their statement, as it was the amount recommended by the Board, but it is clearly insufficient at the present time."

7. The Committee have expressed the opinion that a bounty on fabricated steel would not be a satisfactory substitute for a duty on that article. They take the view that protection to manufacturing industries can be best afforded by means of import duties. But, like the Fiscal Commission, they would protect a raw material such as steel by means of bounties. The experience of the working of the bounties on railway wagons shows that this is a sound view. It is readily acknowledged by the Committee that the wagon bounty has greatly stimulated the Indian wagon building industry. Indeed, the response of the industry to the stimulus has been such as to make it reasonable to anticipate that Indian manufacturers will be able ultimately to fulfil all the requirements of the Indian railways as regards broad gauge wagons. But this anticipation will not be realised unless protection is continued; and if the need for the continuance of protection is admitted there arises the question of why it should be afforded by bounties rather than by duties. Wagon-building is one of those industries in which large scale production means economy of production; and it is also, as the Committee have just mentioned an industry which will in course of time be able to supply all the requirements of the Indian railways. It would appear therefore to be an industry eminently fitted to be protected by import duties rather than by bounties; and the Committee strongly recommend that the Tariff Board should consider the question of substituting duties for the existing bounty scheme.

8. It was foreshadowed by the Board, in paragraph 92 of their report, dated 2nd September 1925, that the question of substituting for the bounty scheme a protective duty on imported wagons would be open for consideration during the course of the enquiry which is now in progress. The Committee would urge that the question should be thoroughly investigated, as they believe that in the interests of the wagon-building industry the change ought now to be made. They do not propose to enter at length into the relative advantages and disadvantages of the two systems. But one of the disadvantages of the bounty scheme is, as it seems to them, that no information can be obtained as to what the actual amount of the bounty on any particular wagon is. In reply to an enquiry from the Committee on this point the Railway Board have stated within the last few weeks that the

average bounty per wagon for the year works out to Rs. 228-7-0; and that they are unable to give any further information. This is an unsatisfactory position which places the wagon-builders at a great disadvantage; and the Committee suggest therefore that the Tariff Board should request permission from the Government to disclose the figures. For without them it will be difficult to estimate what increase on the present import duty of 10 per cent. will be required to afford the necessary measure of protection.

9. The manufacture in India of carriage under-frames is on a much smaller scale than is the manufacture of wagons. Nevertheless the industry has responded to the stimulus of protection; and there is every reason to believe that it will continue to develop under that stimulus. So far the orders which have been placed with the Indian manufacturers have been small, and they have been given at irregular intervals. Tenders have not been called for at stated times yearly as is the practice with wagons. The industry has been handicapped to this extent, but nevertheless it has made progress. The Committee do not put forward any specific recommendation on the point whether the protection to be given to it should be a bounty on under-frames manufactured in this country, or a duty on imported under-frames. They are content to leave the decision of this point to the Board. But they want to make it clear that they are decidedly of the opinion that protection must be continued if the industry is to be firmly established. It may be considered to be really an industry collateral with that of wagon-building. In other words, the development of wagon-building capacity means also a development of under-frame building capacity, if the necessary facilities for erection are available.

Calcutta 10th June 1926.

Fabricated Steel.

X.—Applications dealing with Fabricated Steel.

1. THE PENINSULAR LOCOMOTIVE COMPANY, LIMITED.

(1) *Representation, dated the 30th April 1926.*

In connection with the Press Communiqué, dated 16th April 1926, which you were good enough to send us, we beg to apply for protection for the locomotive industry.

We regard this industry to fall under the group referred to in paragraph 3 of your circular as an industry "the claims of which to protection have already been admitted." We beg to submit, therefore, a statement only on the specific point on which the demand for protection by this industry was turned down in the enquiry of 1923.

Should the Board desire that a fuller statement be made, we shall be glad to do so. We interpret the last paragraph of your circular to mean that on the preliminary representation the Board will issue a questionnaire to us calling for detailed replies on specific issues, both general and technical. On receipt of this we shall try and send the detailed statement to you.

The Chairman of this Company is expected to be in India some time before October, and we assume that the Board will not desire oral evidence in connection with this industry till after they have dealt with the larger questions referring to the Steel Company.

Note accompanying the application for protection for the Locomotive Industry, dated 30th April 1926.

At the time of the last inquiry the Tariff Board, having gone into the policy of the Government of India, the communiqué of 1921, the origin and organisation of the Peninsular Locomotive Company, expressed themselves in the following terms:—

'The industry in our opinion has strong claims to temporary national assistance There is every reason to believe that the works will be under efficient control. The industry is very valuable from the national point of view. Apart from its importance as affecting the question of national defence, it is an industry which gives ample opportunities for the purpose of training Indians in mechanical engineering, and if India is to make itself independent as far as possible in the supply of its Railway requirements, it is essential that in its industrial organization it should possess a well-established locomotive industry. With regard to the supply of labour also, it is favourably situated We consider that the establishment of the manufacture of locomotives in India is desirable both on national grounds and because of its importance to the development of the Steel industry The protection required would probably be not greater than has been found necessary for the protection of the locomotive industry in other countries such as Australia, where the import duty is 27½ per cent. *ad valorem*, and Canada, where it is 22½ per cent.'

2. The Tariff Board then estimated the demand for locomotives in India and put it at a hundred locomotives for the next five years on the evidence of Mr. (now Sir) C. D. M. Hindley.

"If the requirements during the next five years of all the railways owned by Government will not exceed 100 locomotives in any one year, it is clear that no protection, or assistance in any other

form, can be recommended by us in respect of this industry. . . .
There is no 'large market' in the sense in which that phrase was used by the Fiscal Commission."

We beg to state that if 400 locomotives for twelve years mentioned in the communiqué of 1921 were an over-estimate of Government requirements, the figure mentioned in Sir C. D. M. Hindley's evidence has proved to be an under-estimate. The annual requirements since 1920-21 have been as follows:—

	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Broad Gauge	553	71	156	165	118	206
Metre Gauge	316	42	78	30	44	41
TOTAL	869	113	234	195	162	247

This gives an average of 303 locomotives purchased by Government for the last six years since 1920 as compared with 255 locomotives a year before the war.

3. These requirements have been for Government railways only, *i.e.*, for 27,160 miles out of a total of 33,270 miles. This would involve an additional demand of about 33 per cent. outside Government requirements, subject to adjustment regarding gauge and intensity.

4. There is another and a considerable item of demand to be covered by the existing locomotive factory, and, that is, spare parts. Government's policy in connection with the purchase and manufacture of spare parts for locomotives has not been clearly defined. The requirements of Government railways alone for spare parts for locomotives would keep several factories of the size of the Peninsular Locomotive Company's Works at Tatanagar going. While the Government have, therefore, been reluctant to utilise the services of the Peninsular Locomotive Company in this direction, they have not stinted on the outlay on railway workshops, the figure of such outlay during the last few years having been put at no less than Rs. 8½ crores. In an official interview with the Chief Commissioner for Railways in September 1924, it was definitely stated that railway workshops were fully equipped for all purposes of repairs of locomotives as well as for manufacturing all the spare parts required, and yet since then there have been considerable outlays in this direction. In railway circles official critics of policy have themselves complained about the duplication of workshops and the necessity of reorganization. These criticisms led to the appointment of the Railway Workshops Committee under Sir Vincent Raven. The report of this Committee has not been made available to this Company, but it is bound to throw light on the capacity of existing workshops and whether this capacity has not been increased unduly so as to trespass on the legitimate scope and activities of private enterprise.

5. Whatever may be said about repairs, the experience throughout the world points to private enterprise in manufacture always producing better results in point of quality and price than State Workshops. Even in the United Kingdom railways have returned to the practice of placing orders with locomotive factories.

6. Under these conditions, while turning down the demand for protection of a Company brought into existence by their expressed programme and promise, we understand the Railway Board have countenanced the manufacture of locomotives which is attempted and is carried out in the State Workshops at Ajmer. It is for the Tariff Board to elicit authoritative information on these activities both as to costs and quality and to take into account the full bearing of the various economic principles, which they applied to the request of this Company in 1923 and on which they turned down the demand

for assistance. If accounts were kept commercially, and all allowance were made for those items, for which a business firm has to pay, the costs at Ajmer would be substantially higher than at our Works, taking into consideration the economical methods associated with private enterprise. "The heavy burden" which "the country would carry," according to paragraph 18 of the Tariff Board's report on locomotive building industry, is as much there in the activities of State workshops as in that of private enterprise.

7. Some arrangements could have been made for placing orders for locomotives or spare parts with this Company but for the inelasticity of the stores rules, by which the Railway Board is bound. These rules affect only the purchase of items required for any department of Government and the rules are so explicit that little or no discretion is left. No such rules restrict the capital outlay, in sanctioning which the Railway Board have absolute control subject to the approval of the Railway Finance Committee.

8. Another important question in connection with this matter would be the procedure of purchase. State railways managed by Companies are, we understand, co-operating more with the Railway Board for the calling of tenders for locomotives, but these tenders are not called in India in rupees for delivery in India, and the Railway Board claim that they can only recommend the acceptance of certain tenders to the Boards of Company-managed railways. In the absence of express provision modifying application of stores rules to locomotives and spare parts purchase, no results would be secured by negotiations of this Company with the Railway Board, whose powers appear to be unduly restricted by these rules. We think that absolute and final discretion should be left with the Railway Board, a great Department of the Government of India, who could be trusted to take a long view of things without any sacrifice of essential economy.

9. Considerable progress has been made with regard to the standardisation of types, a difficulty which also weighed with the Tariff Board in their decision in their first report in 1924. Full particulars of this also, we trust, the Tariff Board will be able to secure from the Railway Board. The latest tenders, which are being called in London, are, we understand, for 89 standard locomotives.

10. The situation of this Company has materially altered since the compromise effected with the Government of India, by which the Railway Board were pleased to place an order with this Company for five hundred wagons at the lowest tendered Indian price without bounty. The Company undertook on their side to put up all the necessary additional plant especially required for wagon building. This has been already done at a considerable outlay and the Company is turning out wagons at an increasing rate, the output for the current month being seventy-two wagons. The lay out of the Works is, however, as a locomotive factory and a very large part of the plant put down for locomotives has been lying idle for all these years. The Company has suffered considerable loss in standing charges and interest during the interval. The position now is that a certain amount of overhead charges as well as depreciation charges for machinery and buildings are covered by the wagon activity of the Company. If locomotives are, therefore, manufactured, this activity would have to bear only a portion of the overhead charges according to the turnover and a portion only of the depreciation, interest and other charges. What was, therefore, not possible in 1921 or at any later time, including 1924 at the time of the first Tariff Board enquiry, has now become possible. If the Peninsular Locomotive Company received a small order for locomotives, there would be no danger now of the amount of protection or other initial encouragement given to this Company being unduly heavy and the taxpayer, therefore, being called upon to make an undue sacrifice. If with ever-increasing traffic in future and increased mileage, the railways expect to recover a reasonable return on all the additional capital outlay in the direction of their workshops, it ought not to be difficult for them to find a reasonable means of securing a return under the head of locomotives to a portion of rupees thirty lakhs odd, at which figure the capital outlay of the Company at present stands.

11. The projected manufacture of locomotives in India, we claim, had a direct bearing on the prices quoted to Government for their orders placed in 1920-21 and one or two subsequent orders. The prices in these years were unduly low and in other connection the Tariff Board have themselves discovered that English firms were obliged for a short time in order to keep the nucleus of Works together to forego not only profits but even overhead charges. If, therefore, it is assumed on a conservative calculation that the saving to the railways was of at least £1,000 per locomotive, then the total saving would be somewhere in the neighbourhood of £1,000,000. With all respect this Company must represent that a portion of this saving was directly due to locomotive manufacturers in the United Kingdom and elsewhere being frightened by the policy of the Government, which culminated in the communiqué of September 30, 1921, and by the existence of this Company. If a part is, therefore, given to this Company by way of temporary assistance on a scale fixed by the Tariff Board, it would be eminently fair. By giving the benefit of discussion between the technical advisers of the Railway Board in this country and the users of locomotives and those who are manufacturing locomotives on the spot, it would result in numerous direct savings for all time to come.

12. We would request the Tariff Board to call for the report of the enquiry, which was promised in locomotive industry by Sir Charles Innes in the course of proceedings of the Select Committee on the Indian Steel Protection Bill in May-June 1924. This enquiry was with a view to encourage the establishment of the locomotive industry in India and to re-examine the position from where it was left by the Tariff Board. We regret that no official intimation has been given to us of this enquiry and if any reports have been received by the special officer deputed to the United Kingdom, such report has not been made available to us and we would request the Tariff Board to get this report.

13. In view of the changed conditions of demand indicated above and the reduced requirements for locomotive orders of this Company on account of their carrying on simultaneously wagon building, the Tariff Board should now come to a decision favouring the grant of temporary national assistance for securing the establishment of locomotive industry in India. The only other practical issue before them would be how much protection or assistance is wanted. We beg to state in the briefest outline the factors bearing on the subject.

- (I) Whether the engineering trade in the United Kingdom is in a sufficiently settled condition to induce the belief that prices are not being cut and that overhead charges are being fully recovered and normal profits are added to quotations. Prices, which are the result of a mere desire to exist as a going concern with a recognised goodwill, cannot be regarded as commercially competitive prices and the unfairness of subjecting an Indian enterprise to a blank arithmetical comparison with such prices is obvious.
- (II) Unless tenders are called in India in rupees for delivery in India, a proper basis of comparison must be established between the English f.o.b. price and the Indian price. The actual charges by Government over the f.o.b. sterling prices are bound to be misleading apart from the fact that the figure given would be an average figure. The difference between the charges, which a business concern would have to bear, and which the Government pays, arises in several ways:—
- (i) Government get advantageous exchange,
 - (ii) Government reckon no interest on any outlays which they make from revenue and possibly from ways and means budget,
 - (iii) Government do not insure any material which is consigned to them,
 - (iv) Government receive a very heavy rebate of charges by way of freight paid by them to the shipping Companies.

These disadvantages must weigh permanently against the Indian manufacturer and any calculation for converting the f.o.b. price into a rupee price in order to be fair must include these items on the same scale as borne by the purchases of business houses.

(III) Items, over which the Indian manufacturer would have to spend more than rival foreign manufacturers, would be—

- (a) Steel, whose price would be increased on account of the protective duties. In the same group falls the additional price, which the Indian manufacturer would have to pay for importing acid quality steel plates for boiler making unless the Railway Board are prepared to accept the best quality plates as produced by the Tata Iron and Steel Company, Limited.
- (b) Brass, copper and other metals, which in their unfabricated condition are imported in India at a duty of 15 per cent., which the foreign manufacturer does not bear, whereas on the finished locomotive the duty is only 2½ per cent.
- (c) On all tools, of which there is a very heavy wear and tear at the locomotive works, the duty is paid at the rate of 15 per cent. This duty is not paid by the British manufacturer. The wear and tear of tools is so heavy that they could not be regarded as ordinary capital items, but must bear a recurring charge. The same applies to spare parts and other capital equipment, while the import duty on machinery and buildings, which go into capital account, imposes a recurring charge through the reckoning of depreciation.

(IV) Subvention towards the heavier initial costs involved in starting the manufacture:—

- (a) *Scale.*—The unit of economic production mentioned by the Chairman of this Company in his last evidence was two hundred locomotives, the Works of the Company having been designed to produce this quantity. This programme differed from that of a shop, which could do mere assembling and which could then handle a much smaller number in conjunction with other activities. It is quite true that in England there are locomotive works which produce per year a smaller number, but the comparison between England and India ought not to be strained as in England specialisation in production is carried very far. Ancillary works manufacturing certain articles in the bulk for the trade are established, which render it not only unnecessary but uneconomical to attempt to manufacture these parts in a multiple shop. In India until the advance of industry is extensive no intermediary Works of this kind can be expected to come into existence. It is impossible to envisage the growth of locomotive industry from the piecemeal establishment of several small concerns manufacturing one or the other part or a few items at a time. If locomotive industry is to be established in India it must come from the top as a single composite enterprise attempting to do all that is possible in India under one roof and importing the rest. There are engineering works in Calcutta capable of manufacturing certain items, but could they be induced to quote reasonable rates? Would the demand of locomotive parts from the local manufacturers be large enough to induce them to undertake the initial heavy work? These uncertainties render it necessary that the initial

outlay for patterns, jigs, dies and other equipment must be incurred by a central self-contained works and if that was to be done, two hundred was a proper number. If the scale of manufacture is reduced, because the railways require less, or because, of what they require, they are unwilling to entrust more than a fraction to the Peninsular Locomotive Company, the cost per unit may increase.

- (b) *Cheapest Market.*—The policy of the Railway Board and that of the Indian Stores Department does not appear to have finally crystallised and on the one hand there is the uncertainty about the placing of continuous orders, and when the orders are placed the railways want to buy in the cheapest market transferring any burden from bounties to the general revenue, and on the other there is the demand that the largest number of items should be manufactured in India. In order to manufacture the largest number in India, orders have got to be pooled. Where certain component parts, which are turned out in large quantity and in good quality in the United Kingdom, can be bought cheaper, no restriction should be placed in the first few years on such purchase on the ground that the manufacturer is avoiding maximum amount of manufacture in India.
- (c) For numerous well-known reasons the operating costs for many kinds of plant are heavier in India than in the United Kingdom even in some older industries. The experience of the State in the manufacture of ammunitions, in the running of railways and in other directions might confirm this fact, which has been observed in several industries. Any disadvantage under this score, which the locomotive industry would have in common with other organizations, must be provided for in whatever form it is decided to give the protection.
- (d) If in the first few years for any reason of policy or economy the orders are small, it reduces the bargaining power of the manufacturer not only with regard to raw materials but with regard to component parts, which have to be purchased abroad. Apart from all other questions affecting manufacturing costs, this would be also a matter to be taken into account.

14. On the occasion on which the Tariff Board try to determine the form and the amount of assistance to be given to this industry, it would be useful for them to send for the original tenders, which were submitted in December 1923. The Company was then prepared to take orders under the system of open tender rather than remain idle, and the guiding factor was that the loss by working even at the low prices would be less than by being shut down. The figures then given would not have any absolute value to-day, but would serve to remove the notion, which appears to have spread that this Company has been demanding excessive and absurd protection.

15. In conclusion we may be permitted to state that the problem before the Tariff Board is not one of bringing into existence a new industry, but of allowing a plant already in existence to function as it was intended to function. Unless the scales are unduly weighted in favour of the foreign competitor, the industry can in the long run hold its own. This result could be brought about without heavy burden and as in the case of the wagon industry initial assistance is bound to give impetus, which will bear good fruits. Other things being equal, it would be a proud day for India when the Locomotive, which is the final product of modern industry, is manufactured in the country and this manufacture has been brought about by a wise and discriminating policy at the hands of Government.

APPENDIX I.

(LEGISLATIVE ASSEMBLY.)

Manufacture of wagons and locomotives.

Question No. 419.
(Aug.-Sept. 1925.)

Mr. Kumar Sankar Roy.—Will the Government be pleased to state what is their policy with regard to railway workshops in the matter of construction and manufacture of new wagons and locomotives?

Mr. G. G. Sim.—The policy of the Government with regard to railway workshops, in the matter of construction and manufacture of new wagons and locomotives, is that in all cases where it is found to be economical to purchase from private manufacturers this course is adopted.

Question No. 420.

Mr. Kumar Sankar Roy.—Will the Government be pleased to state the number of:—

- (a) new wagons,
- (b) new locomotives,

whether for additional plant or for replacement of old plant, which have been constructed at any of the workshops of the railways in India?

The Honourable Sir Charles Innes.—If the Honourable Member will state the period of which the information is required, Government will collect it and supply it to him.

APPENDIX II.

The Railway Industries Committee, over which Mr. (now Sir) Charles Innes presided, reported as follows:—

“ We do not stop to point out the difficulties of price comparison, for there are other difficulties of a more serious nature. The principal difficulty is that described in paragraph 65 of the Report of the Fiscal Commission. Industries of this kind require a considerable period for their development. Large capital expenditure is required for plant equipment services and the like, and a considerable time must elapse between the inception of the undertaking and the beginning of actual manufacture. In India, however, the supply of skilled labour for work of this class is limited. It is extremely expensive to import all the skilled labour required and much time and money must be spent in collecting and training the necessary skilled operatives. During the initial stage of development the outturn must be small and uncertain and manufacturing costs must be much higher than those of old established works abroad. This difficulty is inherent in the problem and must always be serious: but at the present time it is especially serious. It is well-known that owing to general trade depression, manufacturers abroad, especially in the United Kingdom, are fighting with their backs to the wall in order to keep their works open and their men employed, and they are quoting prices which in some cases at any rate we believe to be below the commercial cost of production. In any case they are quoting prices with which firms in India cannot possibly compete.”

“ It is doubtful whether an Indian concern can for many years to come compete against so powerful a concern without a very large measure of assistance from Government. At any rate, it is certain that it cannot do so in the early stages of its existence. Thus we are driven to the conclusion that a guarantee of orders at a price fixed in accordance with Rule 10 of the Stores Purchase Rules will not by itself suffice to encourage industries which produce railway material of a fabricated nature such as wagons and locomotives.”

“It will now be clear why our Chairman decided that we must await the Fiscal Commission's Report before submitting our own report. For we see no escape from the conclusion that the industries, which we are now discussing, if they are to be developed—or rather kept alive—in India, must temporarily get some form of protection or assistance from Government.”

“We do not think that any useful purpose would be served by our going on to examine the further question whether special measures should be taken to develop these industries, as, for instance, by guaranteeing them orders at a price at which they can work, even though that price may exceed the price admissible under Rule 10 of the Stores Rules.”

“The only recommendation, therefore, which we can make is that if a Tariff Board is constituted, and if the question whether protection should be extended to the steel industry is remitted to that Board for examination, it should be instructed also to investigate the wagon, locomotive and similar industries, to consider the bearing on such industries of any proposals it may make in respect of steel and to make such recommendations as it thinks fit in regard to these industries.”

APPENDIX III.

INDIAN LEGISLATIVE ASSEMBLY.

21st January 1926.

Rupee tenders for India.

The Hon'ble Sir Bhupendra Nath Mitra,

“The Honourable Member will no doubt realise the difficulties entailed in this subject to which I have referred on several occasions in this House. He will understand, for instance, that it would be quite impossible, without *undue sacrifice of economy* and also without incurring *undue risk of unsatisfactory supplies*, to apply what may be called the rupee tender purchase system indiscriminately to all kinds of plant and stores required by Government. The Government of India have therefore thought it desirable to examine in the first instance the question to what classes of stores the system could be applied without incurring the risks I have mentioned. This has necessarily involved detailed discussion with the various purchasing and consuming departments of Government, but I am able to say that these discussions have now got so far that a list of the different kinds of stores to which the system might be extended without undue risk has been compiled and is now under consideration.”

(2) *Representation, dated the 15th May 1926, from the Peninsular Locomotive Company, Limited.*

We beg to acknowledge your letter No. 232, dated 11th instant. As already intimated, the Directors of this Company regard the primary function of this Company to be the manufacture of locomotives. The lay-out of the Works is for locomotives and a very large amount of capital equipment is lying idle, the losses on which are at present being borne by the Company. Hence necessarily greater emphasis was laid on the need for protection to the locomotive industry.

Regarding wagons, as desired, a statement urging continuation of protection and certain alterations in the method is sent herewith. In their report on the grant of supplementary protection, dated 2nd September 1925, the Tariff Board have stated with reference to this Company that they gave no figures of costs and declined to come for oral evidence and their tender was not based on actual experience. The facts of the case are that negotiations, which began in April 1924, with the Railway Board, came to a conclusion only in September 1924, resulting in an order of five hundred A-2 wagons. But the erection of the Works, which had been suspended in 1922 when negotiations for a locomotive order broke off, had to be completed. Arrangements were, therefore, made from October, 1924, for bringing out staff from England for finishing the erection. Additional machinery was from time to time suggested by the Indian Stores Department, whose advice and assistance we here gratefully acknowledge, but the actual arrival of these machines and their functioning took considerable time. No reliable figures could, therefore, be given of the manufacturing costs of this Company at the time of the Tariff Board's last inquiry when the erection of the works was still going on side by side with such activity for wagon building as was possible. No discourtesy was, therefore, intended; nor was there any desire to conceal any relevant facts bearing on the problem under investigation.

We have sent a cable to our London Office and on definite news being received from there, shall put ourselves in touch with you in order to ascertain the convenience of the Tariff Board with regard to our oral evidence.

The Statement of the Peninsular Locomotive Company, Limited, supplementing their statement submitted on the 8th of August 1925, with regard to the question of assistance to wagon manufacture.

The Tariff Board have invited the views of firms desiring the continuance of protection under three heads:—

I. THE GROUNDS ON WHICH THE CONTINUANCE OF PROTECTION IS NECESSARY IN RESPECT OF WAGON MANUFACTURE.

(1) The main ground would be to equalise the price of steel to the total manufacturer with that paid by his foreign rivals. What has been hitherto attempted is to neutralise the effect of duties only, but even if there were no duties the Indian steel manufacturer can always sell his steel to local manufacturers at the price at which a European wagon manufacturer can buy *plus* freight, insurance, interest, ordinary revenue duties and intermediate handling at both places. The State is not bound to bring down the price of material to the local manufacturer to this level, but this gives the extreme limit for the purposes of argument, where the State has other grounds for encouraging the establishment of a particular industry. This consideration is important in the analysis though it would get discounted in a fair price comparison. The final price offered by any manufacturer is, however, the result of many factors, some pulling in one direction and some in other.

(2) Since the first inquiry of the Tariff Board the exchange has been rising and has remained now fairly steady at 1s. 6d. But the full economic effects

of this rise with reference to the prices in India and in Europe, with reference to money rates and their effect on production and wages, could not be said to have been worked off yet. Whatever differences of opinion there may be as to the ultimate permanent effects of this rise of exchange, no one disputes that it has a temporary effect and until this temporary effect is for practical purposes completely discounted, continued assistance by the State becomes necessary. Apart from the question of the Indian exchange with United Kingdom, the sagging of several Continental exchanges, particularly Italian, French and Belgian, could not but affect the prospects and progress of wagon manufacture in India. Until Continental prices, therefore, show a definite tendency to rise and exchanges are finally fixed, an indeterminate position would continue in which the Indian wagon manufacturer must be allowed to have reasonable sense of security and hopeful outlook through the feeling that against any unfair advantage to his foreign rivals, the State in India is watchful and will protect him.

(3) So long as the system of calling rupee tenders in India for delivery in India has not been established, the complaint of the wagon manufacturer that he suffers in price comparison will not be eradicated. On the question of price comparison there has been since the report of the Railway Industries Committee a good deal of ground covered especially by the first report of the Tariff Board themselves, but there are certain factors which are permanently against the Indian manufacturer. These are as follows:—

- (a) *Interest*.—The Government are not in the habit of reckoning interest for any payments made from revenue balances or even from the ways and means balances. The prior payment, therefore, to the European manufacturer gives him a benefit in respect of interest and a disadvantage to the Indian manufacturer, who has to pay out perhaps months beforehand for his material from his working capital, which would be for most concerns for these purposes borrowed from the banks.
- (b) *Insurance*.—Government does not insure any material consigned to it. A private individual, on the other hand, has to pay full rates of insurance on all that he imports and fair conditions will be established only if tenders were called in India, in which the European manufacturer or his agent would have to add to the f.o.b. sterling price at European port the whole of the insurance charges payable on the value of the wagon.
- (c) *Duty*.—A minute examination of the factors would necessitate the taking into account of the fact that the payment for duty on imported parts is made by the Indian manufacturers months ahead before they receive payment for the finished article, and the task of finding the necessary finance and bearing interest for it is to the disadvantage of the Indian manufacturer.
- (d) *Freight Rebate*.—Government receive a considerable and heavy rebate on freight charges and if the price comparison involves only the addition of actual freight paid by them, it would not be at all fair.
- (e) *Erection charges*.—On the variety of practice amongst Indian railways of charges in connection with erection, there was sufficient evidence at the time of the first enquiry. The Tariff Board calculated these at Rs. 325. We do not know whether this figure took account of anything more than the direct payment to contractors for erection and whether full overhead charges, at which the same amount spent on labour would be reckoned in a private works, were calculated in this.

(4) Some of these factors, it may be noted, are variable from year to year and others would vary according to the type of wagon. A standard figure, therefore, of the bounty as fixed by the Tariff Board over the lowest foreign price would favour the types like C-1, which are cheaper, and penalises those manufacturing heavier and dearer types like A-2 as this Company has been doing. Further so long as there is no purchase by rupee tender in India, it

is only the special machinery of the Indian Steel Industry (Protection) Act, which involves even information being given to wagon manufacturers of Government's requirements. Abolish the provisions affecting wagons in that Act, and we fear that there will be the reversion to the older practice, in which the Railway Board may or may not even inform local manufacturers of their requirements. There is nothing in the existing stores rules compelling them to give this information or to call tenders in India.* In fact the existing stores rules compel, when the enquiry exceeds a particular amount, an indent to be sent to the Director-General of Stores in London. It is only the Indian Steel Industry (Protection) Act and the provisions affecting wagons, which, therefore, have involved a certain amount of correlated exchange of information between wagon manufacturers and the Railway Board on behalf of Indian railways.

(5) A premature withdrawal of protection granted to the wagon industry is likely to disorganize the efforts, which have been made hitherto and which have, according to Tariff Board's report regarding grant of supplementary protection, borne such satisfactory results. An argument for the abolition of the protection would arise if protection had failed, but, as it has succeeded it must be kept up until it is definitely proved that the need no longer exists. The Tariff Board might very reasonably put the burden of proof on those who advise the discontinuance of the protection. The response given by the wagon industry to the very cautious policy pursued by the State with regard to wagon manufacture justifies its continuance for some time to come.

(6) One of the arguments, which may be advanced against the continuance, is the burden on the general taxpayer. On this we urge that a longer view should be taken. It has not been proved that protection has involved increased cost in the case of wagons. On the contrary during the whole period that protection has been in operation the cost to the State of wagons has been constantly on the decline. In other words, Government have got very full benefit of the fall of prices throughout the world as well as in India. They have made their purchases of wagons in India under conditions of hard competition and have actually been paying less than they would have had to pay, had the wagon industry of India been disorganized with an isolated Company struggling on here and there. We have heard that in the United Kingdom at least there was at one time a wagon ring deciding on what quotation shall be sent for the requirements of Indian State Railways. It is legitimate to hold the view that the wise policy of the State with regard to protection to Indian concerns has enabled this ring to be broken and to secure material, for which otherwise the railways might still have been paying at a heavy rate. Apart from the immediate economies realised in this way, more than counter-balancing the amount of bounty, the permanent benefit from the point of view of military security must also be considered. There is further the opportunity for the Indian manufacturer of wagons and the user of wagons, the Indian State Railways, to be near each other and to react through mutual exchange of views in constant improvement of the type. In fact when by the continuance of the same policy of protection larger capital has been attracted into this industry and the zest of competition increased, India will be permanently free from abject dependence either as to supply or prices on foreign sources, and the State Railways will save in the long run a hundred times more than the small amount, which the taxpayer is paying out at present to sustain the wagon industry in their fight against unfair conditions of foreign competition.

(7) It would hardly be necessary to emphasise the old argument, which is nevertheless true, viz., that a portion of the money spent by the State in assisting the wagon industry returns to the State in the form of payment by the wagon trade of local charges, provincial taxation and Imperial duties:

* For the purposes of comparison we would refer to the practice in connection with locomotives and locomotive parts. Even information is not available with regard to the latter and with regard to the former we have had no official information with regard to the Railway Board's call for tenders of 89 standard locomotives now being placed in the United Kingdom, though we have never ceased to be a locomotive manufacturing company.

The other argument, which weighed with the Tariff Board and the Government of the country was that if the steel industry is to be protected, then the best thing that can be done for that industry is to provide a market for its products in India. The wagon manufacturer of India is a safe purchaser of the Steel Company's products not only in rolled steel, but so far as their plate mills are concerned. There is, besides, the argument of great importance that if the wagon industry prospers in India even at a slight temporary sacrifice to the taxpayer, a vast amount of money is retained in the country and circulates through the payment of wages and salaries. Taking four thousand wagons as the yearly purchases by the Government of India as suggested by the wagon trade and putting a rough value on them of four thousand rupees per wagon, the total amounts spent in the country would be a crore and sixty lakhs of rupees. Taking Rs. 1,500 per wagon as the charges of one kind or the other, other than the cost of materials, there is on a very rough calculation a sum of sixty lakhs of rupees circulating in the country by way of wages and salaries, from which also a certain percentage must trickle back into the treasury of the State. No money value, however, can be put upon the increase of technical skill and the greater and improved efficiency of several thousand men engaged in this trade and the direct and indirect benefits which the community is bound to reap from their existence. There is no greater economic calamity than the compulsory conversion of skilled labour into unskilled labour under pressure of unemployment. The discontinuance of assistance to the wagon industry, if it resulted into the disbanding of the nucleus of trained labour which has been brought together, would bring about this disaster.

(8) So far as the Peninsular Locomotive Company is concerned, an additional ground for temporary continuance of protection to the wagon side of their activities arises from the fact that, located at Tatanagar, the payment of wages and the conditions offered to labour are governed by the higher scale which through tradition or the need of their industry the Tata Iron and Steel Company have established there. The higher wages and better conditions, however, cannot survive without restrictive provisions of trade-unions, which do not exist in India. Therefore, the suction, which has started at Tatanagar, must bring within its fold before very long a larger mass of skilled labour and, if there were no other obstacles to the economic adjustment of wages, the higher scale prevailing there at present as compared with that in other manufacturing centres in India must come down. It is further notorious that even after the payment of this higher scale there is no approach to European efficiency for the large bulk of the working men and for a considerable time. As the industry becomes older not only the discipline and "esprit-de-corps" at the works improves, but the need for costly supervision diminishes. This is also one of those factors on account of which, amongst other things, the continuance of protection for some time longer would be justified.

II. WHETHER THE MEASURE OF PROTECTION NOW GIVEN SHOULD BE INCREASED OR DIMINISHED.

(9) Arguments bearing on this were stated at length in a statement submitted by this Company in August 1925. Various other difficulties were also indicated in the actual administration of the bounty and it was pointed out that subsidy in the form of money was not the only manner in which the State could help. It was indicated amongst other things that continuity of orders was a very important factor leading to reduction of costs and, therefore, reducing the contribution from the State, as well as the period of time during which assistance would be necessary. We will take this occasion to indicate that the tenders given by us in the month of January 1925 were the lowest both with regard to A-2 and C-2 wagons, not because the price quoted by us was expected to cover all our costs and give us normal profits, but because we were afraid of being left out and not having any orders at all. A more reasonable tender was sent by us in November 1925, but it appears that another Company found itself without sufficient orders on their books and gave a quotation, which must on a close examination, we think, be found

to be uneconomical. While the State, on the one hand, claims that they have given bounty, the system of administering bounties which does not involve some kind of continuity of orders, is such that in effect they are taking away by the left hand what they are giving by the right hand. We would further illustrate the position of our Company by saying that when our tenders were rejected in December 1925, we were extremely apprehensive as to whether for some months towards the end of the official year ending March 1927, we should be obliged to close down the works for want of orders on our books. This apprehension on our part was not shared by the Railway Board, relying on the estimate of our output by the Indian Stores Department. It is very difficult to say whether there will or will not be a period of enforced idleness towards the close of this official year, but, fearing that it would be so, on receiving an intimation that our tenders had been rejected, we sent an urgent telegram to the Railway Board offering to take two hundred wagons at the lowest price at which they were placing the order. This was expected by us to be a stand-bye to keep the nucleus of labour, etc. during the last two or three months during which we still fear we shall be without work. The standing charges during these months in our case this year and in the case of any Company during a period in which they are left out either through their quotations being high, or, what is more likely, through the quotation of other companies being unduly low and calculated merely to cover direct costs, must inflict a loss on the wagon manufacturer, which would materially curtail any stimulus which the bounty system may have given. As a matter of fact the actual administration of the bounty system by the Railway Board has involved setting aside of the tenders and the fixing of orders by individual negotiation in a manner that elicited from the Tariff Board the term "mystification" in application to the bounty. The Railway Board spoke of "accepted" prices and not "tendered." Many complicated calculations have to be gone in by Government and they have to take into account numerous factors. The Government at present appear to be under the impression that by not accepting the full recommendations of the Tariff Board as to the amount of assistance necessary, they have shewn a better grasp of the situation than the Tariff Board themselves, but we think this is a misapprehension as the guiding factor at the time of the call for competitive tenders in the mind of the tenderer is that he must have an order for a certain amount to keep the works going regardless of whether it gives him a high profit or no profits at all. The Tariff Board in their report on supplementary protection spoke of "wagon building firms themselves being in the best position to decide what is the lowest price which makes an order worth accepting." It is only those firms who are engaged in general engineering and not in wagon trade alone, who can divert at any time their activities to other fields. For the wagon manufacturer proper the aim of the Tariff Board should be, in the first instance, to see that for wagons produced protection on the scale, which they recommended in their first report, is actually accorded to him and that the struggle for bare existence on the part of companies, which have laid out vast sums in specialised machinery and block, does not result in beating down the price with a continually diminishing bounty per wagon. If the bounty represents a genuine difference between costs in two countries as estimated by the Tariff Board, then for its reduction to one half or one-third the Government cannot be congratulated. No one can accuse the Tariff Board of having recommended an extravagant scale of assistance. They themselves have admitted that "the scheme suggested was designed rather to prevent the immediate disappearance of the wagon industry than to ensure as rapid a development as might in favourable circumstances be possible." (Supplementary Protection Report, page 67, paragraph 87). The idea of discriminating protection on certain lines set before the country through the Tariff Board is directly defeated if the wagon manufacturer does not receive all that was intended to be received by him after comprehensive and expert enquiry at the hands of the Board.

(10) We would ask to be allowed to refer to another important factor affecting wagon manufacture, on which again the whole outlook and progress of the industry seems to depend. It is well known that certain parts going into wagons have to be imported from the United Kingdom, because they are

not yet made in India. Further, certain other parts, which a wagon manufacturer intends to manufacture himself later on, have as a matter of convenience to be imported from the United Kingdom, because they can be had cheaper than either the cost of his own manufacture at his works or the quotation received by him from engineering firms located in India. Difficulties have been experienced by us with regard to orders placed for component parts in India resulting in large delays through no fault of our own. Thus an order was placed with a large well known engineering works of Calcutta for screw couplings and after much valuable time had elapsed we were informed that the raw material, which they were using, *viz.*, "D" class steel from Messrs. The Tata Iron and Steel Company did not come up to the specification. They, therefore, asked for the contract to be cancelled as they were unable to give the stipulated or any deliveries till they had imported the raw material from United Kingdom. Experience of this kind often becomes a deterrent to orders being placed in India, particularly because the Railway Board provide that no failure on the part of the sub contractor will be regarded as a reasonable explanation for delays in delivery. Further, clause 5 of the conditions of contract issued by the Railway Board specifically provides that if any parts are imported from abroad they must be accompanied by inspection certificates issued at the other end. This inspection takes place at the hands of the consulting engineers to the State Railways. We have found, unfortunately for ourselves, that material, which was ordered to specification and duly inspected in the United Kingdom before shipment, was reinspected at this end involving enormous amount of cross correspondence and cables and great anxieties to the Works Manager and everybody. We were able to make representation to the Great Indian Peninsula Railway administration, who recognised the difficulties caused to us by such reinspection and passed some of our bills, but we have not yet received final decision from the Railway Board, who, we understand, are examining this question. We have no doubt the Railway Board will ultimately issue orders precluding double inspection. We may state for the information of the Tariff Board that inspection fees on all imported parts are payable by the Indian wagon manufacturer and the difficulties appear to us to be arising out of the fact that the mode of inspection in the United Kingdom is different from the method adopted by the Indian Stores Department, in India. Otherwise we cannot understand how any faults, which came to the notice of the Indian Stores Department Inspector at this end failed to be noticed at the other end. We have taken this opportunity of stating some of these difficulties, because if there is any check on the output of a works from any of these causes, it upsets all financial calculations as to costs and, therefore, is likely to defeat the aim which the Tariff Board have in recommending bounties. We repeat what we said at the beginning that it is more important to see that the bounty actually recommended by the Tariff Board reaches the manufacturer and is not defeated by conditions of competitive tender or any other procedure from the moment of the calling of the tender up to the time of the payment for goods delivered being effected. The bounties are at present payable from general revenues, but we think the Railway Board as a whole must share the purpose of the Government in instituting these bounties, *viz.*, that wagon manufacture is to be encouraged until it is sufficiently well established to hold its own against foreign competition. We trust the Tariff Board, in making any recommendations as to the form and amount of protection will throw out a general suggestion for securing speedy and satisfactory solution of all small issues arising out of this procedure whenever they are represented to the Railway Board until more experience is gained.

(11) We further suggest a closer examination by the Tariff Board of the issue of railway materials certificates only to concerns at present exclusively engaged in the manufacture of wagons, *viz.*, the Indian Standard Wagon Company and this Company. Both these are located inland and operate through the port of Calcutta for all imported parts as well as for component parts manufactured in Calcutta. So far as the components are concerned, if it is desired that engineering firms should be encouraged to specialise as ancillaries to wagon companies, instead of wagon companies trying to produce everything on the spot, then special rates from Calcutta to the works

would create a traffic, which would not otherwise come into existence, and would lead to the utilisation of the skill and plants already in existence. So far as the carriage of imported parts from Calcutta to the works is concerned, the lower freight charged by the railways would benefit the railways as a whole and the Railway Board ought to have sufficient authority to pass orders for the railway material rates to apply to this traffic as the general advantages to the country in the long run are big enough to over-ride any objection from individual railway companies. If it is a matter of moment to the Government of India and the nation to see wagon manufacture established, then why should the local manufacturer be penalised in respect of the price which he has to pay for parts which are not at present manufactured in India, particularly by having this price unnecessarily swollen by the application of full freight rates? The railways themselves must feel that even this much traffic in imported parts of wagons is there, because the wagon manufacturers exist. If they were wiped out, there would not be this traffic, on which they would not earn either this or any other rate. So long as therefore they are not out of pocket over this traffic, this traffic should be scheduled for railway material rates. Further we have come to learn that on some occasions the railway materials certificates are so issued. We understood, for example, that if we purchased vacuum brake gear from the local agents of a particular firm in Calcutta, the carriage of this to our works would be at railway material rates. The material from the same Company purchased at their headquarters and shipped out here would have to bear the ordinary rates. We cannot understand why this should be so.

(12) We would suggest that the question as to whether the present protection should be increased or diminished be judged in the following manner:—

An analysis should be made out of the various wagon manufacturing companies in order to find out whether

- (a) the industry is just kept alive, *i.e.*, the losses suffered by it are not so great as to wipe it out,
- (b) the industry is kept up in a condition where it incurs no loss, but makes no profit,
- (c) the industry is making normal profits earned by such manufacturers in other countries or normal as applied to the engineering trade as a whole in India,
- (d) the industry makes out a profit over and above the normal return to the capital invested in engineering trade in particular or industries in general.

We would urge that until the Tariff Board have actually found that the assistance by way of bounty or otherwise given on their recommendation has brought companies in class (d), protection should be continued on the scale on which it is and should not be reduced. If the Tariff Board find that the present scale of protection by way of bounties does not bring all concerns even in class (b), then it is a clear argument for increasing protection. It is possible that such accounts may not be available to the Tariff Board for some time as complete accounts over any period takes a little time to audit. It is also possible that the form, in which the accounts of wagon manufacturing companies are made out, may not enable the Tariff Board to come to a definite conclusion on these lines, but we consider that this would be a sound test. In the meanwhile the Tariff Board should take account of every factor which has gone to reduce the real succour, which was recommended by them in their first report, or to nullify it. Some of these factors have been stated in our note, dated 8th August 1925, and others have been stated above. We think that the first thing to do is to increase the nominal protection in order to bring it to the scale of the real protection recommended originally. Whether it should be increased beyond that or not would depend on the desire of the Government as to whether the Government wish to bring about increased production of wagons in India. To us it appears that if further capital is to be attracted into this industry, then it is better to have a larger amount of protection spread over a smaller period as this is more effective for the purpose than the same sum spread arithmetically over a large number of years.

Since the wagon output in India supplies only a part of Government's requirements, which by the increased mileage and increased traffic are likely to grow, we think there is a bigger scope for increased production. New capital, however, will not be attracted for the older works or for the erection of new works until it is demonstrated that the actual profits earned on the capital hitherto invested are high. A scale of protection, which aims at stimulating output, is bound to bring higher profits to those who are first in the field and any narrow view of their initial earnings is not likely to attract more capital into the trade. The published accounts of no company engaged in the wagon trade could induce a belief that at the present moment those profits are high. We, therefore, believe that there is considerable scope for the increase of protection for the objects which were enunciated by the Tariff Commission and for the reasons which were shifted and accepted by the Tariff Board in their first report.

III. WHETHER THE PROTECTION SHOULD BE GIVEN BY MEANS OF PROTECTIVE DUTIES OR BOUNTIES.

(13) We suggest that protection should be given by means of tariff instead of bounty. As the wagons involve a lot more fabrication than ordinary structurals, we cannot think that if the protection had been by means of tariff, it would have been less than 25 per cent. The general revenues would have benefited and railways would have had to pay a little more as they have paid on fabricated steel for buildings, station yards, etc. The stimulus to industry would have been distinct and the response greater than under the present halting system of bounties.

(14) As the Tariff Board have only stated their conclusions, the arguments, which weighed with them for the preference of bounties to tariffs for the wagon industry are somewhat obscure. In their report on supplementary protection they have stated that the increase in wagon output, which has actually come about, not anticipated by them in March 1924. We may state that the increase, which is anticipated in the wagon manufacturing capacity of India, is still under-estimated. If the Railway Board have thought it proper to place an order for 3,500 wagons in India, the wagon industry does not give a mere fraction of the requirement, but covers almost half of the total. If a tariff were, therefore imposed and if it were declared that this tariff will not be modified in the downward direction for the next five years, the output would certainly increase. Speaking for this Company, there is no doubt that the output of a hundred wagons a month, for reaching which all our energies are at present directed, would be achieved before the end of this year. But if we felt secure we would not hesitate to put up certain additional plant necessary for doubling this output.

(15) The other advantage of assistance by bounty over tariffs is that when the bounty increases with production, it gives a direct stimulus. The experience in the past in India, however, has been that the bounty has constantly gone on diminishing with increased production. The diminution has not been due altogether to normal trade conditions. The following table with regard to A-2 type wagons is instructive:—

Date of tender.	Date of order.	Price quoted by the Peninsular.	Price accepted by Railway Board.	Bounty recommended by Tariff Board.	Actual bounty.
		Rs.	Rs.	Rs.	
...	18-9-1924	...	4,400	850	nil
13-1-1925	16-3-1925	3,898	3,898	700	475
10-11-1925	8-12-1925	4,098	3,470	580	not stated.

(16) We cannot think that there were normal trade factors between the time of placing these three orders justifying a fall of prices successively of as much as Rs. 502 per wagon on one occasion and a further fall of Rs. 428 on another occasion. The Tariff Board themselves in their report on supplementary protection states that the fall of prices in materials between 1923 and 1925 according to two firms is either Rs. 587 or Rs. 555. It is instructive to compare the prices paid by the Railway Board:—

Wagons completed before 31st March 1925.	Wagons completed after 31st March 1925.	Orders placed in March 1922.	Orders placed in November 1925.	Difference.
	Rs.	Rs.	Rs.	Rs.
A-2 Rs. 4,750	4,200	3,888	3,470	1,280
C-2 " 4,450	4,000	3,800	3,110	1,340

	1923.	1925.	Difference.
	Rs.	Rs.	Rs.
Average cost of materials	3,088	2,517	571

(Ref. page 56, paragraph 86 of Supplementary Report.)

(17) Whereas the fall of prices justified by Indian conditions should be somewhere near Rs. 571, it has been from Rs. 1,280 on the A-2 type wagons to Rs. 1,340 on the C-2 type wagons. All this requires an explanation. The fact that the English prices are converted at 1s. 6d., instead of 1s. 4d., does not give to the Indian manufacturer more than a fractional advantage on the material imported and this advantage would be already discounted in the statement of the cost of materials. In other words, the Indian manufacturer has been compelled to accept lower prices though there was nothing in the Indian situation justifying this. Perhaps an explanation would be found in the persistent reduction of the real bounty. What the bounty is for different types of wagons in December 1925 has not been stated by the Railway Board notwithstanding the recommendation of the Tariff Board and in spite of a specific request to this effect having been made by the Indian Engineering Association (No. 35-S., dated 20th March 1926 from the Railway Board to the Indian Engineering Association). It would be instructive to make a parallel table of prices paid for these two types to manufacturers in the United Kingdom for the last few years and of the prices paid to the Indian manufacturer. While as far as we can see the variation in the British price in sterling has not been considerable at any time, the fall in the rupee price paid to the Indian manufacturer, as will be seen from the above, has been phenomenal.

(18) That there should have been such a fall with the bounty system, however imperfect it may be, proves conclusively that the industry would have been wiped out without the bounty. It also proves that the provision on paper of a bounty does not necessarily mean that the Indian manufacturer receives all that he should. In our case the lower quotation in January 1925 was with a desire not to be left out without any orders on our books and we shall be very glad if the Tariff Board would ascertain whether in the price

tendered by another firm in November 1925 for A-2 wagons of Rs. 3,470 and for C-2 wagons of Rs. 3,110, the same motives were not in operation. We frankly stated in our previous statement that our quotation was based on ascertained English prices, but it would be found that we were not alone amongst the Indian manufacturers, who based their quotation on such information as they had from the United Kingdom. This search for information from the other end is bound to go on unless the Government earmarked four thousand wagons as suggested by the wagon trade on the occasion of the previous enquiry for being placed in India under Indian conditions only. We suggest that surplus orders for wagons should be placed abroad, if there are no changes in the system of calling tenders as at present, only after the books of the Indian manufacturers are full. We are not certain that the complications of the bounty system may not grow hereafter. An enterprising engineering firm may seize an opportunity of a slight slackening in their own trade to turn their hand to wagon. The Tariff Board themselves referred to the case of a Karachi firm, which quoted for wagons actually below the lowest price quoted from the United Kingdom. The bounty system as administered at present would topple down like a house of cards in such a case in spite of the fact that the local manufacturer may have achieved a remarkable degree of efficiency and organization. Further, now that underframes and wagons have been put on the same basis with discretion to the Railway Department to shift the bounty from the one to the other firms making both underframes and wagons are likely whenever they have secured a satisfactory order for one or the other to under-quote their rivals at the time of the next tender. This lower quotation can be as on a previous occasion with reference to a very small number of a particular type, thus forcing the hands of the Railway Board to fix the bounty on that particular type from this lower figure.

(19) A further weakness of the bounty system as administered at present resulting in unfairness is indicated below. In the tenders submitted on the 13th of January 1925 we had quoted for 215 A-2 wagons and 125 C-2 wagons, in both of which our quotation was the lowest. The Railway Board had in their hands orders for 480 A-2 wagons and 425 C-2 wagons. They decided to place with us an order for 480 A-2 wagons at our quotation. We would have very much preferred the order for 425 C-2 wagons at our quotation. We have read carefully the reasons given by the Railway Board in the Railway Administration Report of the period ending March 31st, 1925, for their action, but these reasons are not convincing.

	Type.	No.	Price.	Total turnover.	Bounty per wagon.	Sum of bounty.	PERCENTAGE OF BOUNTY.		
							On gross turnover.	Actual	As it should be.
			Rs.	Rs.	Rs.	Rs.			
Peninsular	A-2	480	3,898	18,71,040	475	2,28,000	12.1	43.4	53.7
I. S. W. Co. Ltd.	C-2	425	3,800	16,15,000	700	2,97,500	18.4	56.6	46.3

(20) It is noteworthy that the prices, at which the order was placed for C-2 wagons with the other firm, was not a tendered price by them, but was the result of negotiations, to which we were also open. We think the total

amount of bounty, viz., Rs. 5,25,500, should have been distributed between these two firms on the basis of turnover, in which case we would have received as our share Rs. 2,82,193-8-0, i.e., 53.7 per cent. of the bounty, instead of which the amount actually assigned to us was Rs. 2,23,000, i.e., 43.4 per cent. Why this was not done we do not know. In bringing out this fact we have no desire to complain against the Railway Board, to whom we are grateful for at least placing this order with us as without that order our Works would have been at a standstill to-day. But we must point out the inherent defect of a system, which, administered by fair-minded men with best intentions can lead to assistance being given even to the two firms engaged exclusively in the wagon trade at the time of settling the same tender on a scale so widely divergent from one another. Our complaint is not that orders, which would have come to us by being the lowest tenderer, were being given elsewhere, but that the bounty, to which we were entitled, was diverted elsewhere without an option being given to us for deciding which of the two orders we preferred. Had such an option been given, it is possible that we would have preferred the C-2 type wagons at Rs. 3,800 to the A-2 wagons at Rs. 3,898. The difference between these two types in the final price, at which orders were placed in December 1925, was Rs. 360. The enormous amount of difficulty that we have experienced since with regard to the sheets delivered by the Tata Iron and Steel Company, Limited, would also have made this order for C-2 wagons much more acceptable to us. There is no reason to suppose that C-2 wagons could not be produced at a price lower than Rs. 3,800. In judging this, it should be noted that the reduction in price secured by the Railway Board a few months later was Rs. 690 per wagon for C-2 type as against only Rs. 423 for A-2 type, which shows that they could have been so produced. Nor was the need of this Company for bounty less. On the contrary as an older established wagon Company, the other firm was in a much stronger position and if it came to a question of comparison, it would do with less assistance than the Peninsular which had just started operations. We have no desire to say that all this was deliberate on the part of anybody, but we think that a system, which cannot be administered without such things occurring, should be more closely examined, and should we find that on several occasions hereafter the scales have weighed against us in this way, it should give us a very legitimate cause for complaint. We think it would be safer for the Railway Board and for everybody concerned if a tariff was put in on wagons imported into India and if tenders were then called not separately as hitherto, but in rupees for delivery in India. All firms outside from India, whether from U. K. or elsewhere, would then add to their final price full market rates for charges for bringing material into India including the full duty.

(21) A fear has been expressed that tariffs might produce vested interests. But in a policy of discriminating protection recommended after expert enquiry by the Tariff Board, such fears must be faced. We think that the danger of vested interests as well as other undesirable features connected with protection is much greater in bounties than in tariffs. With the imposition of a duty at one stroke all procedure would be simplified and there would be no room either for negotiations or for discretion. Every one would be subject alike to the same conditions and the policy of protection would have a better chance of being fairly judged than at present with numerous complications, most of which have been indicated above. While bounties have enabled those firms, who were already in the field as the result of the general awards by the Railway Board in their communiqué, dated 1st March 1918, to make a greater effort and secure a systematic output, the fact that three years of the grant of bounties have not brought in additional capital in the field or attracted those who are supplying the Indian market hitherto from other centres to settle in India, shows that for one reason or the other, there has not been induced in the mind of the investor that degree of confidence which would secure this result.

(22) The proper administration of the bounty system in future should be on the percentage of value rather than a fixed sum, and we suggest that if it is going to be a percentage, the substitution of a tariff would be better, simpler and more satisfactory to everybody concerned. We would, therefore,

suggest a protective tariff and we would put this tariff at 33½ per cent. This might be undoubtedly higher than the protection hitherto granted, but its effects would be certain and if it results in other wagon firms being established in India or existing works being extended, then by standardized production and internal competition the actual burden borne by the purchaser of railway wagons would go on automatically diminishing till it disappears.

(23) We, therefore, suggest :—

- (a) that a duty should be levied on imported wagons and it should be at the rate of 33½ per cent.
- (b) that refund should be given to the wagon manufacturer of any duty charged either on the present scale or on the newly proposed scale on all imported items required for wagon building, which are not being manufactured in India to the required standard to the satisfaction of the Indian Stores Department.
- (c) that tenders for Government railways should be called in India in rupees for delivery in India,
- (d) that four thousand wagons should be earmarked for manufacture in India and orders should be placed abroad only after the local manufacturers have their books full,
- (e) that if the bounty system is continued, its administration should be simplified, greater publicity should be given to the decisions of the Railway Board and at the time of the call for tenders the amount of bounty, which will be attached per wagon to the total quantity of wagons placed in India, should be declared, and the amount of bounty should vary for each type only according to value of type,
- (f) that since the bounty is in the very nature of it a gift recommended after careful examination on national grounds, it should not be curtailed merely because one of the firms tendering is frightened through motives of self-preservation into quoting very low. The bounty recommended by the Tariff Board should not be treated as a maximum to be worked down but should be a minimum to be adhered to.
- (g) that if the Tariff Board is satisfied that the maximum fall of prices in wagons has been already achieved, some sort of scheduled composite prices should be fixed for a number of years leaving to the manufacturer the residual benefits or otherwise from his activities.

2. THE INDIAN STANDARD WAGON COMPANY, LIMITED, AND BURN AND COMPANY, LIMITED.

Representation, dated 18th May 1926.

We have pleasure in forwarding herewith six copies of our written statements regarding the following industries:—

Wagons.
Carriage Underframes.
Wagon and Underframe parts.
Fabricated Steel.
Points and Crossings.

We understand that you do not intend to deal with shipbuilding at the present enquiry and we have therefore forwarded no written statement regarding that industry.

WAGONS.

The Fiscal Commission in section 97 of their Report lay down as essential three conditions that should govern the grant of protection to any industry.

But now we are not asked to justify a grant of protection but the continuance of the grant, and we therefore do not propose to reiterate the arguments and facts we have from time to time put forward to shew that the wagon industry satisfies those three essential conditions.

The function of the present Tariff Board enquiry is discussed in sections 117 and 118 of the Fiscal Commission Report, in which the Commissioners state that protection should be withdrawn from those industries which have not fulfilled the expectations on which protection was granted. Those expectations are indicated on page 55 of the Fiscal Report, as follows:—

- (1) That in those industries in which large scale production can be achieved increasing output should mean economy of production and
- (2) That there should be a probability that in the course of time the whole needs of the country should be satisfied by the Home production.

If we can show that we have fulfilled these two expectations we submit that we have justified the claim that protection should be continued.

We beg to quote a passage from a speech made by The Honourable Sir Charles Innes in the Legislative Assembly on the 17th February 1926.

“ It is a fact that in the last two or three years these wagon firms have been able to increase their output in a very remarkable way. We have already placed orders last November for 3,200 and the amount of assistance is now going down sensibly until it has reached a bounty of Rs. 228 per wagon.”

We have been able to earn this tribute partly because the Government, since the advent of the bounty scheme, have given us an opportunity of exploiting the economies of large scale production by placing with us relatively large orders, and also the orders have been of one type.

This has strengthened our position as purchasers of raw material, and has tended to bring us a little nearer to the fortunate position of Home Manufacturers who have a world-wide market and who buy their raw materials in quantities so large that they can get terms far more favourable than those that we can command.

For example in the case of the vacuum brake work it will be recalled that in our evidence given before the Board we stated that the British Manufacturers procured their fittings at a less price than we could obtain.

Another feature which has enabled us to purchase fittings much more cheaply is that we have been able to place axle boxes, buffers, solebar, stiffeners, springs and spring steel on the Continent. This source of supply has only become available since the arrangements by the Indian Stores Department were made for the inspection of such fittings in Europe. It must be remembered that if this source of supply is closed to us by the Railway Board specifying that only British material has to be used the prices will automatically increase.

The second result of our obtaining larger orders and greater output is that the Overhead Charges per wagon have been reduced; but we regret that this course of economy has not yet been fully appreciated by the Government.

By gradual though constant additions to our plant we endeavour to expand the capacity of the works and when quoting for wagons we estimate the capacity of the plant by past performances modified and improved by the various additions made since last quoting; the Overhead Charges to be included in the price per wagon are ascertained by dividing the known Overhead Expenses of the works by the estimated probable future output.

At the time when tenders for wagons were last called for, we estimated the capacity of the Indian Standard Wagon Co., Ltd. to be 2,000 wagons per year, and quoted on that basis. But orders were placed for only 1,750 wagons, we therefore expect to lose on the order a sum equal to the difference in Overhead Charges. We pointed out this fact to the Government, but without any result and we enclose copies of our letter No. OM/W. 2727 of 10th December 1925 and the Government reply.

But this remarkable increase in output and decrease in costs mentioned by The Hon'ble Sir Charles Innes is not exclusively due to Governmental assistance. It would be a mistake to suppose that we are supinely relying on a perpetually sheltered market. We on our part have improved and increased the capacity of our plant and every endeavour is being made to attain the goal visualized by the Fiscal Commission (section 118 of their Report) when the industry will be able to "supply the entire demand and to be as efficient as its foreign rivals and make the protective duty become largely, if not altogether inoperative."

We give below a brief account of the progress made by the Indian Standard Wagon Co., Ltd., and Burn & Co., Ltd.

The Indian Standard Wagon Co., Ltd.

Since the advent of protection the Indian Standard Wagon Co., Ltd. have spent about Rs. 1,50,000 on additional plant, jigs, dies and special tools, and intend to spend a further Rs. 1,00,000 approximate in 1926-27 on additional machinery and for the extension of the Machine Shop, Smithy and Tool Room. The Indian Standard Wagon Co., Ltd. can now build 2,500 wagons per year, and we intend to lay down special high capacity wagon building machines to enable us to bring an output up to 3,000 wagons per year. The Indian Standard Wagon Co., Ltd. have also reduced their share capital and thereby the cost of depreciation to be included in their wagon prices.

Burn & Co., Ltd.

During the same period Burn & Co., Ltd. spent over Rs. 1,10,000 and have budgeted approximately Rs. 1,30,000 for further improvements during 1926-27. Burn & Co., Ltd. can now build 1,000 wagons per year plus 250 underframes. As far as India is concerned Burn & Co., Ltd. have an unrivalled experience in wagon building, having built wagons for the past 20 years and by the end of this year that plant will be one of the most modern in the wagon building trade.

Burn & Co., Ltd. and the Indian Standard Wagon Co., Ltd. together can satisfy therefore two-thirds of the demand for broad gauge wagons in India.

Messrs. Tata are now in a position to supply all kinds of steel utilized in wagon building with the exception of cast steel fittings.

We feel sure that you will admit that the response of the wagon industry in India to the stimulus of protection has been phenomenal, and to withdraw protection now when the industry has reached its adolescent stage would be catastrophic both for the industry and for India.

* * * * *

In the case of the wagon industry the question of whether protection should be increased or decreased is intimately bound up with the question of what is the most suitable type of protection to employ.

On page 120 of the first Tariff Board Report the Board expressed the opinion that they did not think that the imposition of a protective duty on imported wagons would be a suitable method of developing the industry "at any rate, at 'that' stage." We suggest that the reason underlying that opinion was that the Board were sceptical as to the ability of the Indian Wagon Industry to satisfy in full the Indian demand and in consequence the Board recommended a bounty as a tentative measure.

But "that stage" has now passed and the bounty fund being limited in amount, is now tending to restrict the growth of the industry.

We beg to refer you to the note we forwarded with our letter of the 25th July 1925 (page 249 of the Printed Evidence) in which we expressed our views regarding the three usual types of protection, and in view of the progress made by the industry request you to please consider the question of substituting a protective duty for the bounty scheme.

On page 121 of the first Tariff Board Report and on page 64 of their second Report the Tariff Board recommend that the bounty payable or paid should be made public but in spite of the recommendations of the Tariff Board and of various representations made by the Indian Engineering Association the Government have thought fit to leave us in the dark regarding the amount of bounty paid on each type of wagon to each firm.

The only information that has been disclosed has been the Home Manufacturers f.o.b. prices, and the Indian delivered prices which appeared in the *Indian Trade Journal*; and the statement by Sir Charles Innes in the Assembly that the average bounty paid was Rs. 228 per wagon. The paucity of the information given in the *Indian Trade Journal* makes it almost impossible to make a comparison, and the calculations we have attempted do not give Rs. 228 as the average bounty. If the Government administers the bounty in this secretive manner, how can we judge the progress made towards successful open competition with foreign rivals, and further how can we determine what would be the minimum duty that would adequately protect the industry.

We think that at this stage, at any rate, the Government should publish, or permit the Tariff Board to disclose, those facts and figures that are so essential to the present enquiry. In the meantime we are unable to state what increase in the present duty would afford us adequate protection.

We are, of course, prepared to supply any statistics you require, but we feel that until we are supplied with the facts concerning the bounty any comparative statements we could attempt would be mere guesses.

CARRIAGE UNDERFRAMES.

The manufacture of underframes is collateral to that of wagons and any expansion of the capacity to manufacture wagons means an added capacity to manufacture and build underframes provided the necessary facilities for erection are available as in the case of Burn & Co., Ltd. In fact on many occasions our wagon manufacturing plant would have been idle had it not

been for underframe orders. So far the circumstances of the underframe industry have been different from wagon building in two ways.

- (1) Orders are not called for at regular and stated times each year and
- (2) The orders, compared with those for wagons, are small. The largest order we have so far secured has been one for 137 underframes, and we have just secured one for 5 underframes for the East Indian Railway.

In view of the irregular manner in which tenders for underframes are called for, and orders placed, and in view also of the smallness of the orders usually placed, it is not to be expected that this industry will have made, like wagon building, spectacular progress. But that progress, and substantial progress, has been made is shewn by the following table of outputs:—

1924.		
September	. . . . .	11
October	. . . . .	12
November	. . . . .	15
December	. . . . .	15
1925.		
January	. . . . .	16
February	. . . . .	12
March	. . . . .	13
April	. . . . .	8 (completion).
1926.		
January	. . . . .	10
February	. . . . .	25
March	. . . . .	33
April	. . . . .	22
May	. . . . .	44 (anticipated).
June	. . . . .	3 (completion).
		1924-25. 1925-26.
Average per month excluding first and last month		14 31

The 5 underframes we are building for the East Indian Railway are the first of their type to be built in India having special six-wheeled bogies, and are intended for the East Indian Railway deluxe mail train; this seems to indicate that railways are placing increasing confidence in Indian Manufacturers.

With the exception of a slight decline in the price of raw materials, the position of this industry has scarcely changed since we last appeared before the Board in July 1925, when we submitted that the protection of a bounty of Rs. 1,250 per broad gauge underframe and Rs. 700 per metre gauge underframe should be afforded this industry.

On pages 341—345 of the printed Evidence will be found complete details of the costs and weights of the underframes which were placed with us by the East Indian Railway. Since that date we have received only the order for the 5 East Indian Railway underframes, but on April 23rd last we quoted the Great Indian Peninsula Railway for 98 broad gauge underframes, these are of a design different to the East Indian Railway type previously mentioned. This absence of standardization is one of the factors militating against reduction in costs.

We do not yet know the fate of our tender or how our prices compare with those of our Home and Foreign competitors but we attach details of our quotation in case you are able to obtain from the Great Indian Peninsula Railway that information.

We claim protection, and the continuance of protection on the following grounds:—

- (1) It is obvious that we first require protection to the extent of the burden on our raw material.
- (2) Secondly, we require protection to encourage the placing with us of larger orders, because the industry cannot be developed if we get only small orders and those at uncertain and irregular intervals.
- (3) The industry has the advantage not only of being able to procure all necessary structural and forging material from Tata, it has the added advantage of being an industry collateral to a more highly developed industry, *viz.*, wagon building.

We have had no reason, during the past year, to change our views as to the type or measure of protection required and we beg to refer you to our statements in this connection which appear on page 335 of the printed Evidence, which was as follows:—

- (a) A specific duty of Rs. 2,000 on each frame subject to a reduction each year. We have based this as follows:—

	Rs.
British cost of underframe, £580, exchange 1s. 6d.	7,714
Duty 10 per cent.	771
Bounty required	1,250
	2,021

- (b) An *ad valorem* duty of 26 per cent.
- (c) A bounty of Rs. 1,250 on each underframe delivered before March 31st, 1928.

Year	Rs.		on maximum of 350.
1928-29	Rs. 1,000		
1929-30	Rs. 900	,,	400.
1930-31	Rs. 800	,,	450.
1931-32	Rs. 700	,,	500.
1932-33	Rs. 600	,,	550.
1933-34	Rs. 500	,,	600.

Of the three schemes we would prefer a specific duty.

We stated in our representations in July 1925 that the capacity of the Indian manufacturer was 300 underframes a year. We are of the opinion that the Tariff Board in making their recommendations should make due allowances for the expansion of the industry, hence our suggestion of increasing the number of underframes each year. Inadequate protection defeats its own object, and we respectfully beg to state that we consider inadequate the measure of protection previously granted.

Wagons and underframes spare parts.

In the foregoing pages we have called attention to the economies of large scale production of wagons and underframes. We would now like to call attention to the fact that wagons and underframes could be still further cheapened if the manufacture of wagon and underframe parts such as screw couplings, etc., were encouraged. The economical manufacture of such parts requires the use of dies and jigs, which makes their production expensive unless large numbers are being manufactured.

Large numbers of these parts are annually required by the railways for replacements. The duty on these fittings is only 10 per cent.; the duty on our raw materials is Rs. 40 per ton; in the circumstances it is not surprising that we are not able to obtain orders.

We enclose a list of the principal forgings on a covered goods wagon together with examples, which are typical, of our cost of manufacturing draw bar hooks, brake beams and screw couplings, compared with the price at which those forgings can be imported.

Messrs. Tata can now roll all the classes of steel required, and Tatas special soft steel has been approved by the Railway Board as a substitute for Grade A Iron.

We are confident that if we had a large and steady market for these forgings we could rapidly bring down their price and this would go a very long way towards reducing our wagon and underframe costs.

In view of these facts we submit that wagon forgings are a fit subject for protection, and claim that the duty thereon should be increased from 10 per cent. to 25 per cent.

FABRICATED STEEL.

The manufacturers of fabricated steel viewed with considerable regret and consternation the policy of the Government in opposing the adoption of the Tariff Board's 1925 recommendations.

The Tariff Board closely investigated the condition of the fabricated steel industry under the instructions of the Government; the Board in due course reported their considered opinion, but for this carefully considered opinion the Government substituted their own, and the reasons advanced by the Government appear on investigation to be ill-considered and superficial. The following were the three objections raised by Sir Charles Innes in the Assembly on the 17th February 1926 (page 1394/6 of the Reports):—

- (1) That old established industries should not appeal to the Government when they got into difficulties.
- (2) That the Tariff Board's estimates and forecasts for 1925-26 show that the imports are likely to be much less than they were last year.
- (3) That the Board would again review the situation this year and that there was no necessity of granting protection then.

In reply to point (1).

Perusal of section 100 of the Fiscal Commission Report will disclose no authority for the supposition that old established businesses should be discriminated against in favour of "infant industries" once the right to protection has been established. In the case of fabricated steel, this right has been established, and the legislature in 1924 endorsed the Tariff Board's recommendations. The Government in 1926 admitted that the industry was getting Rs. 21 a ton less protection than was intended by the legislature, and expected by the manufacturers, but the Government in effect advised the legislature to abandon its previous intention. We confess we are unable to follow the reasoning of the Government of India who seems to confuse the frequent alteration of the Tariff with the maintenance of the tariff.

In reply to point (2).

The figures given in the Sea Borne Trade of India are not sufficiently detailed to enable a comparison to be made by us. But nevertheless, the Tariff Board evidently thought it necessary to restore the protection in spite of their own estimates and forecasts.

In reply to point (3).

Unless the Government are prepared to definitely and consistently maintain the promised degree of protection, the industry cannot thrive for want

of security. We fail to see any virtue in procrastination when it has been proved and admitted by the Government that the promised degree of protection is gradually but surely shrinking.

We regret that we are not in a position to quote figures at which contracts have been placed at Home as such information is rarely published. But it is significant that we are usually able to secure work when the calls for tenders are made only in India, but we are rarely, if ever, able to secure contracts when Home Firms are also given an opportunity to quote, and that in spite of the alleged protective duty.

We have no hesitation in stating that the only orders we have received during the past year have been in cases where no tenders were called for at Home.

We give four examples of orders which have been placed in England recently. In the last case quotations were not even called for in India.

(1) *Madras and Southern Mahratta Railway.*

Wagon shop remodelling at Perambur (date 1-10-25).

(2) *North Western Railway.*

53 Spans of 94' 6" (date 13-2-26).

(3) *Assam-Bengal Railway.*

Paint and upholstery shops, Pahartali (date 8-10-25).

(4) *Madras and Southern Mahratta Railway.*

74 Spans from 6 to 60 ft. clear.

84 Flange plates for girders.

Steel material (angles, flats, etc.).

1,161 tons (no tenders called for in India).

The only firm in India that seems to be exempt from the disability in one which is in alliance with a Home Firm of steel manufacturers and Structural Engineers: this firm has been able to underquote us even when Messrs. Tatas have offered Indian manufacturers prices much below the Home price of steel.

The result of the decline in the Home price of steel and of sterling has been that the *ad valorem* duty on fabricated steel has diminished, whilst the burden on our raw material has remained constant, being a specific duty. This fact was realised by the Tariff Board in their 1925 Enquiry, and since that enquiry, we regret to report that the measure of protection has still further receded.

When protection was first granted to the Steel Industry it was accepted by the Tariff Board and the Government of India as axiomatic that the countervailing advantage, either in the form of increased duty or bounty, must be given to the various branches of the Engineering Industry.

As a result of the above an increased duty, calculated not only to cover the increase in the cost of steel but also to provide a substantial amount of protection to the industry, was imposed on fabricated steel, the amount of protection granted being sufficient to balance the greater cost of fabrication in India.

Owing, however, to the decrease in the price of steel and the rise in the rate of exchange the cost of imported steel work has been substantially reduced and a rate of *ad valorem* duty which afforded adequate protection in 1924 is useless to keep the industry alive to-day.

Original Recommendation of Tariff Board.

When the original report on the industry was issued by the Tariff Board their conclusions were based on the following:—

- (a) With exchange at 1s. 4d. and steel at Rs. 160 per ton (including wastage) the cost of importing steel work into India was Rs. 250 per ton exclusive of duty or Rs. 275 inclusive of the existing 10 per cent. duty (see page 113 of Tariff Board Report).
- (b) That the cost of Indian manufactured bridgework (including 10 per cent. duty on steel) was Rs. 243 (see page 114 of Report).
- (c) That if the duty on steel was raised to Rs. 30. The Indian cost would be Rs. 310 (see page 114). The above considerations lead the Board to recommend that the duty on fabricated steelwork be raised to 25 per cent.

Result Expected from the Enhancement of the duty.

When the Tariff Board recommended that the duty be raised to 25 per cent. they expected it to equalize the imported and Indian costs as per table (A) attached.

The duty expected to be levied was Rs. 62 per ton and this consisted of Rs. 33 compensation for duty in steel, and Rs. 29 of substantive protection to the industry.

Actual result of the adoption of an ad valorem duty.

Since the Steel Industries Protection Act came into force there has been a steady fall in the price of steel and the exchange has risen by $\frac{1}{4}$ th from 1s. 4d. to 1s. 6d. the result being to still further depress the Home price for fabricated steel.

As a result of the above two factors the amount of duty recovered under the Act has fallen from Rs. 62 to Rs. 46.8 per ton but as the duty on raw steel is specific the Indian manufacturer has received no relief and has thus lost the substantive protection previously afforded to him to the extent of Rs. 16.

Supplementary Tariff Enquiry in 1925.

The fall in the price of steel and the resultant loss of protection was recognised by the Tariff Board in their supplementary report and they recommended that the duty be increased to 32 $\frac{1}{2}$ per cent.

We attach a schedule showing in detail the successive drops on substantive protection and the necessity of raising the duty to 39 per cent. if an *ad valorem* duty is to be adhered to.

Request for specific duty.

We do not consider it necessary to state in detail our reasons for preferring a specific duty as it has been discussed in detail in Enclosure 1 to our letter of the 23rd June 1925, which has been printed on pages 237—239 of the Evidence before the Tariff Board in their supplementary Enquiry in 1925. We now ask for a specific duty of Rs. 72.8 per ton to be imposed on fabricated steel in order to make the protection afforded to the industry stable and independent of the fluctuations of steel prices and exchange.

POINTS AND CROSSINGS.

Since the Board made their recommendations regarding points and crossings, which appeared on page 116 of their original report, an important advance has been made in this industry.

In July 1923 a Special Committee was appointed by the Conference of Chief Engineers of Indian Railways to standardize the design of points and crossings for Indian Railways, in the manner in which the design of wagons has been standardized.

Prior to this date, designs of points and crossings tended to be peculiar to the particular railway requiring them, and this made the manufacture of points and crossings by mass production an impossibility.

It is not difficult to appreciate that this effort in the direction of standardization of design has opened out possibilities, previously non-existent, of manufacturing points and crossings by mass production and thereby cheapening the cost of production. In short this advance brings the points and crossings industry into that class upon which the Fiscal Commission looked with special favour as being ideal subjects for protection (section 98 of the Fiscal Commission Report).

In view of the protection afforded this industry and in view also of the intention to standardize design, we have extended and remodelled our Points and Crossings Department on the most modern lines and the Department is now capable of turning out 200 sets of points and crossings per month, and we have no hesitation in publicly asserting without fear of contradiction, that the quality of the workmanship is equal to that of any imported points and crossings.

Our output of 200 sets per month represents about 400 tons of steel or about 5,000 tons per annum and the whole of the steel used in the switches and crossings manufactured in our works is of Indian origin.

That this Department has been able to carry on during the last two years is due mainly to three factors:—

- (1) Protection;
- (2) High Grade Workmanship, and
- (3) Quick deliveries due to extending and remodelling this Department.

But the shop has not yet been given the opportunity of working to its full capacity because our price is probably higher than that of the Home manufacturer for we are more frequently called upon to quote for small quantities only, which are required too urgently to call for tenders from Home. For this reason also we are unable to give you examples of Home prices. There are undoubtedly many instances in which tenders have not been called for in India by Indian Railways.

We are strongly of the opinion that this industry would respond as readily as the wagon industry to any real assistance granted by way of protection, and if we had a steady stream of large orders we could undoubtedly, and in a short time, reduce our costs. Given the security of protection we should still further extend this Department, and by the reduction in costs and the increase in output, we should attain the stage the Fiscal Commission had in mind when they wrote (page 55) "In the case of such an industry the burden on the consumer determines automatically."

The statements we have made regarding the decline in the margin of protection originally granted, apply to points and crossings equally with other fabricated steel, and need not be repeated here.

We do not ask so much that the protection originally afforded should be increased; we ask rather than the original measure of protection granted, should be restored to its original degree.

Enclosure I.

COPY.

GOVERNMENT OF INDIA.

RAILWAY DEPARTMENT.

(RAILWAY BOARD.)

No. 35-S. I.

Dated Delhi, the 22nd of December 1925.

To

MESSRS. BURN AND COMPANY,
 Mapping Agents,
 The Indian Standard Wagon Co., Ltd.,
 Howrah.

Tender for Wagons.

DEAR SIRS,

With reference to paragraph 3 of your letter No. O. M./W. 2727, dated the 10th December 1925, I am directed to state that the wagons are required as follows:—

East Indian Railway	845	C-2 type wagons.
North Western Railway	112	Do.
Great Indian Peninsula Railway	429	Do.
TOTAL	1,386	

All the 324 C-3 type wagons are required for the North Western Railway.

2. Regarding paragraph 4 of your letter in which you express your disappointment that the Railway Board have not placed with you an order for the full number of wagons for which you tendered, I am to refer you to paragraph 3-G of the call for tenders in which it is stated that—

“The Railway Board reserve to themselves the power of rejecting any tender without assigning a reason, and do not bind themselves to accept the lowest tender, the whole of a tender or any tender.”

3. I am to add that the Railway Board regret they cannot agree to any of the three requests contained in paragraph 5 of your letter.

Yours faithfully,

(Sd.)

for *Secretary, Railway Board.*

Enclosure II.

COPY.

THE INDIAN STANDARD WAGON CO., LD.

HOWRAH OFFICE,
C/o Messrs. Burn & Co., Ltd.,
Howrah.

No. O. M./W. 2727.

Dated 10th December 1925.

The Secretary,
Railway Board,
Delhi.

DEAR SIR,

We beg to acknowledge with thanks receipt of your letter No. 35-S.-1 of the 5th instant informing us that the following wagons have been placed with us—

I. R. C. A. C-2 type 1,386 wagons at Rs. 3,110 per wagon.

I. R. C. A. C-3 type 324 wagons at Rs. 3,250 per wagon.

A further order of 40 I. R. C. A. Standard C-2 type wagons at the same rate as above will be placed with us subject to the concurrence of the Home Board of the South Indian Railway.

for delivery f.o.r. Works.

We note that the Board will advise us in due course of the railways for which the wagons now ordered are intended and we shall be glad to have this information as early as possible so as to enable us to put in hand the correct fittings.

Whilst expressing our best thanks for this order for 1,750 wagons we must state that we are very disappointed that the Railway Board have not been able to place with us the full quantity of wagons for which we tendered. We expressly stated that we had cut our prices as low as possible and that our tender was based on receiving an order for 2,000 wagons. If we are only to receive contracts for a total 1,750 wagons for the whole year 1926-27 the Company will be faced with a loss of Rs. 133 per wagon due to all overhead charges having to be carried on the reduced number of wagons ordered.

We beg, therefore, to enquire if the Railway Board will assist us—

- (1) By placing with us an order for a further 300 C-2 or C-3 wagons or
- (2) Grant us their assurance that additional orders will be placed not later than August next year to enable us to keep the Works in full operation, or
- (3) If they feel that they are not in a position to place further orders as suggested, would they please consider the revision of the prices of the orders placed, so as to include the Rs. 133 difference in price due to the smaller number being ordered.

Trusting the matter will receive your favourable consideration.

Yours faithfully,

Enclosure III.

FORGINGS FOR A-2 TYPE WAGONS.

Name of Component.	No. per set.	Material used in manufacture.
Scroll Irons	8	Special Soft Steel (Grade A).
Spring Shackles	16	B. Steel.
Drawbar Hooks	2	" D " Steel (4° Sq. Billet).
Drawbar Face Plates	2	B. Steel.
Pull Rod	1	B. Steel.
Flap Door, Side Hinge, R. & L.	4	Special Soft Steel.
Flap Door, Centre, R. & L.	2	Special Soft Steel.
Swing Door, R. & L.	8	Special Soft Steel.
Hand Brake Clutches	1	B. Steel.
Brake Shaft, Short Levers	1	Special Soft Steel.
Brake Shaft, Long Levers	1	Special Soft Steel.
Cylinder Carriers	2	B. Steel.
Short Pull Rods	2	B. Steel.
Hand Brake Levers	1	Special Soft Steel.
Vertical Lever Brackets	1	B. Steel.
Swing door frames, A.	2	B. Steel.
Swing door frames, B.	2	B. Steel.
Flap Door Frames	2	B. Steel.
Chainless Cotter for Swing Door	4	B. Steel.
Brake Block Hanger	4	Special Soft Steel.
Drawbar Spindle	4	D. Steel.
Swing Door Bolt	2	B. Steel.
Axleguard	4	Special Soft Steel.
Brake Rack Guard	1	B. Steel.
Brake Shaft	1	B. Steel.
Brake Beams	2	B. Steel.
Brake Shaft Hanger	2	M. S. Plate.
Vertical Lever Bracket, B	1	Special Soft Steel.
Vertical Lever	4	B. Steel.
Vertical Lever Hanger	2	B. Steel.
Brake Shaft Collars	1	B. Steel.
Connecting Rod	1	B. Steel.
End Inter Stanchion	4	M. S. Bulb Angle.
End Centre Stanchion	2	M. S. Bulb Angle.
Corner Stanchion	4	M. S. Angle.
Double Knee for Trimmer	2	M. S. Plate.
Diagonal	4	Mild Steel.
Body Bracket	12	M. S. Plate.
Buffer Spindle and Head	4	B. Steel.
Screw Coupling Shackle (Long)	2	D. Steel.
Screw Coupling Shackle (Hook)	2	D. Steel.
Screw Coupling Shackle (Short)	2	D. Steel.
Screw Coupling, Trunnion Nut	4	D. Steel.
Suspender Hook	2	B. Steel.

Enclosure IV.

WAGON FITTINGS.

COMPARATIVE COSTS FOR A-2 TYPE.

*Drawbar hooks.**Burn & Co., Ltd.*

Material	Quantity.	Rate.			Cost.		
		Rs. A. P.			Rs. A. P.		
D. Steel	Cwt. 1 2 6	9	1	0	14	1	3
5 per cent. Wastage	0	11	6
Total Material	14	12	9
Labour	7	4	6
Charges	18	5	9
Total cost	40	7	0

Imported (British) 1925.

C.i.f. price £2-9-6 at 1s. 6d. per rupee	Rs. A. P.	33	0	0
Landing		0	4	6
Landed cost without duty		33	4	6

Difference=Rs. 7-2-6 or 21 per cent.

WAGON FITTINGS.

COMPARATIVE COSTS FOR A-2 TYPE.

One vehicle set of 2 brake beams complete.

Burn & Co., Ltd.

Material.	Quantity.	Rate.			Cost.		
		Rs. A. P.			Rs. A. P.		
Special soft steel	Cwt. 2 1 0	8	4	0	18	9	0
5 per cent. Wastage	0	14	10
4 Nuts 1½ Whitworth	0	8	0
4 Split Pins ¼" diameter	0	3	0
4 Grover washer	0	8	0
Total Material	20	10	10
Labour	7	4	0
Charges	16	7	7
Total cost	44	6	5

Imported (British).

	Rs. A. P.
C.i.f. price £2-12-3 at 1s. 6d. per rupee	34 13 4
Landing	0 7 9
	<hr/>
Landed cost without duty	35 5 1

Difference=Rs. 9-1-4 or 26 per cent. of imported cost.

WAGON FITTINGS.

COMPARATIVE COSTS FOR A-2 TYPE.

One vehicle set of screw couplings.

Burn & Co., Ltd.

Material.	Quantity.	Rate.		Cost.	
		Rs.	A. P.	Rs.	A. P.
D. Steel	Cwt. 1 3 13	9	1 0	16	14 8
Mild Steel	0 0 9	7	4 0	0	9 0
Cast Iron	0 0 14	6	8 0	0	13 0
5 per cent. Wastage . . . . .	...	...	...	0	14 8
Rivets . . . . .	...	...	...	0	2 0
Total Material . . . . .	...	...	...	19	5 4
Labour . . . . .	...	...	...	12	3 0
Charges . . . . .	...	...	...	23	3 8
Total cost . . . . .	...	...	...	54	12 0

Imported (British) 1926.

	Rs. A. P.
C.i.f. price £3-5-0 at 1s. 6d. per rupee	43 5 4
Landing	0 6 8
	<hr/>
Landed cost without duty	43 12 0

Difference=Rs. 11 or 25 per cent. of imported cost.

Enclosure V.

G. I. P. UNDERFRAMES.

Summary.

		Rs. A. P.
Materials as per list No. 1	. . . . .	211 5 2
Do. No. 2	. . . . .	3,075 6 6
Do. No. 3	. . . . .	2,015 13 7
Do. No. 4	. . . . .	963 6 0
		6,265 15 3
Labour	. . . . .	1,585 0 0
Charges	. . . . .	2,233 0 0
Profit	. . . . .	200 0 0
		TOTAL . 10,283 15 3

You will notice that the profit only represents 2 per cent., as we were anxious to obtain this order to enable our shops to be kept in-operation until March 1927, but we consider this margin of profit unremunerative, and that we should obtain a minimum of 5 per cent.

G. I. P. UNDERFRAMES.

Quotation submitted on 23rd April 1926.

List No. 1.—Imported materials subject to Protective Duties.

Material.		Rate per cwt.	Total.
		Rs. A. P.	Rs. A. P.
M. S. Channel 8" x 3" x ½"	Cwts. 6 0 3	7 0 0	42 3 0
„ Angle 7" x 3½" x ½"	„ 1 1 22	7 0 0	10 2 0
„ „ 4½" x 3½" x ½"	„ 4 0 22	7 0 0	29 6 0
„ „ 3½" x 3½" x ½"	„ 1 0 6	7 0 0	7 6 0
„ Channel 9" x 3½"	„ 5 2 11	7 0 0	39 3 0
„ Tees 4" x 3" x ½"	„ 2 0 2	7 9 0	15 4 2
„ Angles 6" x 6" x ½"	„ 1 0 20	7 0 0	8 4 0
„ „ 7" x 3½" x ½"	„ 8 0 0	7 0 0	56 0 0
„ „ 3½" x 2½" x ½"	„ 0 2 1	7 0 0	3 9 0
Total	. . .	...	211 5 2

G. I. P. UNDERFRAMES.

Quotation submitted on 23rd April 1926.

List No. 2.—Imported material not subject to Protective Duties.

Material.	Rate per cwt.	Total.
		Rs. A. P.
Bolts with nuts Cwt. 2 3 0	18 1 0	49 10 9
Nuts " 0 2 27	...	23 5 0
Rivets " 9 1 0	14 0 0	128 4 0
4 Buffers comp. with Rubber Springs Each	99 14 9	339 11 0
Washers "	...	6 3 0
Split Pins "	...	2 10 0
8 Axleboxes "	47 12 0	382 0 3
16 Grover Washers "	0 8 0	8 0 0
Steel Castings Cwt. 19 1 23	...	353 3 11
2 Screw Couplings Each	29 0 0	58 0 0
6 Turnbuckles "	10 4 0	61 8 0
8 Laminated Bearing Springs "	50 6 11	403 7 6
Bogie Check Chains "	23 1 6	92 6 0
Miscellaneous items "	...	10 0 0
4 Draw Springs "	7 11 2	30 12 0
4 Side Check Springs "	1 9 5	6 5 8
8 Bolster Check Springs "	8 1 4	64 11 0
4 Do. do. "	7 8 1	30 3 7
16 I. R. Aux. Bearing Spring with fittings "	64 1 0	1,025 6 6
Total . . . . .	...	3,075 6 6

G. I. P. UNDERFRAMES.

Quotation submitted on 23rd April 1926.

List No. 3.—Materials purchased in India, which if imported would be subject to a Protective Duty.

Material.	Rate per cwt.	Total.
		Rs. A. P.
Channels Cwt. 83 3 20	6 8 0	545 8 7
Angles „ 8 0 20	6 12 0	55 3 3
Do. . . . „ 12 1 14	6 8 0	80 4 0
Plates and Sheets „ 110 2 26	6 12 0	747 5 1
M. S. Plates „ 9 2 9	6 12 0	63 8 8
Bars „ 65 1 27½	8 0 0	524 0 0
Total . . . . .	...	2,015 13 7

G. I. P. UNDERFRAMES.

Quotation submitted on 23rd April 1926.

List No. 4.—Materials purchased in India, which if imported would not be subject to a Protective Duty.

Material.	Rate per cwt.	Total.
		Rs. A. P.
Vacuum Brakework	725 0 0
Paint	183 0 0
Axle Oil	26 4 0
Cotton Waste	3 2 0
Cast Iron	26 0 0
Total	963 6 0

Enclosure VI.

FABRICATED STEEL.

Result expected by the Tariff Board from the imposition of a 25 per cent. *ad valorem* duty.

Indian Fabricated Steel (1 ton).

	Rs.
Steel	145
Wastage 10 per cent.	15
Duty	33
Fabrication	117
TOTAL	310

English Fabricated Steel (1 ton).

	Rs.
Steel	145
Wastage 10 per cent.	15
Fabrication	90
TOTAL	250
Duty 25 per cent.	62½
TOTAL	312½

Enclosure VII.

Comparative costs of English and Indian Structural Steel Work (per ton of Fabricated Steel).

ENGLISH FABRICATED STEEL.				INDIAN FABRICATED STEEL.			
Details.	February 1924.	September 1925.	April 1926.	Details.	February 1924.	September 1925.	April 1926.
Rate of Exchange	1s. 4d.	1s. 6d.	1s. 6d.	Rate of Exchange	1s. 4d.	1s. 6d.	1s. 6d.
Landed cost of 1 ton of Steel without duty.	£ 9-13-4= Rs. 145	£ 9-0-0= Rs. 120	£ 7-14-5= Rs. 103	Landed cost of 1 ton of Steel without duty.	£ 9-13-4= Rs. 145	£ 9-0-0= Rs. 120	£ 7-14-5= Rs. 103
Cost of 1 ton of Fabricated Steel.				Cost of 1 ton of Fabricated Steel.			
Steel	145	120	103	Steel	145	120	103
Wastage 10 per cent.	15	12	10·3	Wastage 10 per cent.	15	12	10·3
Fabrication	90	80	72·5	Duty on Steel	33	33	33·0
Total	250	212	185·8	Fabrication	117	117	112·0
Duty 25 per cent.	62½	53	46·5	Total Cost	310	282	258·3
Landed Cost	312½	265	232·3				
Difference between British and Indian costs before adding duty	60	70	72·5				
Ad valorem duty required	35%	33%	39				
Duty Paid	62½	53	46·5				
1926 Position.				Duty paid	33	33	33
Difference between Indian and Home price	72·5	...	...	Difference being Substantive-Protection	29·5	20	13·5
Deduct offsetting duty	33·0	...	...	Loss of Protection since 1924 . . . . .	...	9·5	16·0
Protection now required	39·5	...	...		

3. MESSRS. JESSOP AND COMPANY, LIMITED.

Statement II.—Letter, dated 11th/14th May 1926, from Messrs. Jessop & Co., Ltd.

Press Communiqué, dated the 16th April 1926.—Before particularizing the nature and amount of protection required for the engineering industry it is proposed to notice the intimate connection this industry has with the industry producing raw material.

The feature of the Tata Iron and Steel Company that renders the undertaking so vitally important to India in times of isolation from countries overseas is that they can produce steel rails and mild steel structural shapes and sections (up to British Standard Specification) that can be fabricated into buildings, bridges, wagons and underframes of quality to fill the requirements of Indian railways and thus enable them to be practically independent of imports.

It will be seen from the above that the engineering industry is the supplement of the steel industry and the value of the one would be discounted by the absence of the other.

A further circumstance for consideration is that the skilled labour required by the one industry is drawn from the same peoples as that drawn by the other.

Tatas roll an untested steel suitable for the minor requirements of the general public. This is a convenience but the material is not of such value to the country as is the tested steel referred to above as it can be largely replaced by many kinds of indigenous timber.

Fabrication of steel as apart from its production.—The fact we have set out to prove is that the conditions affecting the engineering industry are worse to-day than in 1923 and 1925 and it is essential if Indian Engineering Industries are to be kept alive, that the principle of the Steel Protection Act of 1924 must be extended for a further period.

Based on the evidence put before them, the Board, in their Report of March 1924, arrived at certain conclusions which were accepted by the Legislature. Again in September 1925 further recommendations were made by the Board to meet the changed conditions that had risen in the interim. The Government of India, however, appear to have based their argument for non-acceptance of these recommendations on the fact that the whole question had to come up again for consideration at the present enquiry which was then due to be held shortly afterwards and therefore they could not see their way to make any alteration at the tail end of the period.

Before entering into details of costs of fabricating steel and building wagons and bogie underframes, we desire to state our views with regard to some of the arguments raised during the debate in the Legislative Assembly, on Wednesday, February 17th, 1926.

The main reasons given by the Hon'ble Sir Charles Innes for not increasing the offsetting duty on fabricated steel were:—

- (1) Engineering in India is not an infant industry and engineering had been in existence in India for over 100 years, and, therefore, they do not require support.
- (2) No record of pressure of imports from abroad.
- (3) A set back in the working of an industry for 12 months is of little moment.

In reply to the above we would state:—

- (1) Engineering in a sense is not a modern industry in India and a chronicle of our inception and doings for more than a century would disclose the following facts:—

At birth we were recorded as *mechanical engineers*, organised to execute urgent repairs to marine and land machinery.

Time was then a great factor in our favour, as communicating with countries overseas was a slow and tedious business.

In course of time a merchant's business was added to the above and an impetus was given to the infant mechanical engineering industry by a fall in the exchange value of the rupee.

Later, the country was flooded with cheap Continental steel, which, for private consumption, displaced British iron and steel and gave scope in India for structural engineering.

Advantage was taken of the opportunity and *structural* engineering was added to our other activities.

Continental material was found to be unreliable and the advent of open hearth basic steel of British manufacture saw the decline of Continental material.

Our prosperity in the middle half of our history was due largely to our merchant business and to a low exchange value of the rupee.

- (2) We have no record of imports later than that given in the Administration Report on Railways, 1924-25, in which it is stated that out of a total expenditure of Rs. 46,00,000 on bridge work, only Rs. 5,00,000 were spent in India. The proportion of imports to local purchase does appear to be larger than might be necessary when it is remembered that the spending department is pledged, other things being equal, to foster a local industry.
- (3) Nothing does an industry more harm than blowing hot and cold on it. Move as slowly as it may be considered desirable and let there be a continuity of policy. If it is considered necessary to support an industry, do so till it has found support unnecessary. Commercialism will not permit inflated profits to be made for any length of time. Competition, whether by existing competitors, or by fresh comers on the field, will quickly reduce prices to a reasonable basis. Spasmodic bids to establish any industry must result in waste of money, and 12 months lost by an industry is a matter of serious concern.

Fabricated steel, railway wagons and bogie underframes are, with regard to manufacture, in many respects similar to one another, but, to state the facts more clearly, we will deal first with fabricated steel and then with wagons and underframes.

Fabricated steel.—The Board in their Report of March 1924 arrived at the conclusion that a fair average cost per ton of British fabricated steel, excluding duty, was Rs. 250 per ton c.f.i. and that the Indian cost was Rs. 310 per ton including Rs. 33 per ton the specific duty on steel allowing for 10 per cent wastage.

The details were as follows:—

<i>British c.f.i. cost per ton at 1s. 4d. exchange.</i>		Rs.
Material plus 10 per cent. wastage		160
Conversion at £6 per ton		90
		<hr/> 250 <hr/>
<i>Indian cost per ton at 1s. 4d. exchange.</i>		Rs.
Material plus 10 per cent. wastage		160
Duty plus 10 per cent. wastage		33
Conversion		117
		<hr/> 310 <hr/>

The cost c.f.i. of British steel was on an average Rs. 145 per ton during 1923, when exchange was 1s. 4d., but this cost has now fallen to Rs. 100 per ton with exchange at 1s. 6d.

It is more than probable that the average British cost of conversion has fallen from £6 per ton to quite £5 per ton since 1923 as the wages paid to British workmen have been steadily reduced and this makes the position for India even worse, as there has been no reduction in wages in India since the war and the reduction in overhead charges would not reduce the Indian conversion cost by more than 5 per cent., or say, Rs. 117 to Rs. 110. Therefore, a comparison in cost to-day is as follows:—

British c.f.i. cost per ton exchange 1s. 6d.

	Rs.	A.	P.
Material plus 10 per cent. wastage	110	0	0
Conversion £5 per ton	66	10	8
	<hr/>		
	176	10	8

Indian cost including duty.

	Rs.	A.	P.
Material plus 10 per cent. wastage	110	0	0
Duty plus 10 per cent. wastage	33	0	0
Conversion	110	0	0
	<hr/>		
	253	0	0

A difference of Rs. 76-5-4 or 43½ per cent.

The preference we are actually receiving is 25 per cent. on Rs. 176 or Rs. 44 per ton of which Rs. 33 goes to pay the specific duty on steel including 10 per cent. wastage. In fact we are worse off to-day than we were in 1923, for the costs then were as follows:—

British cost.

	Rs.
Material plus 10 per cent. wastage	160
Conversion at £6 per ton at 1s. 4d. exchange	90
	<hr/>
	250
Duty 10 per cent.	25
	<hr/>
	275

Indian cost.

	Rs.
Material plus 10 per cent. wastage	160
Duty 10 per cent.	16
Conversion	117
	<hr/>
	293

Rs. 18 per ton against us.

The position to-day after the Tariff Board has been operating for 3 years is:—

British cost.

	Rs.	A.	P.
Material plus 10 per cent. wastage	110	0	0
Conversion at £5 per ton	66	10	8
	<hr/>		
	176	10	8
Duty 25 per cent.	44	2	8
	<hr/>		
	220	13	4

Indian cost.

	Rs.
Material plus 10 per cent. wastage	110
Duty on material	33
Conversion	110
	<hr/>
	253

Rs. 32-3-0 per ton against us.

From the above it will be seen that we were better off in 1923 by Rs. 14-3-0 per ton.

We are not aware what the future duty on steel is to be but if, for the sake of argument, we eliminate the question of duty our cost would be reduced to Rs. 220 per ton, and the imported cost to Rs. 176-10-8, a difference of Rs. 43-5-4 per ton, or 25 per cent.

Purchasing Officers throughout the country are particularly loath to divulge the results of tenders and, therefore, we find the greatest difficulty in being able to specify actual examples of orders having been placed abroad at a lower rate than Indian tenders.

Wagons and underframes.—The cost of an imported wagon or underframe bears a different ratio to the local cost than that found to apply to imported and locally-fabricated structural work due to the following causes:—

- (1) A large proportion of the cost of a wagon pertains to imported components and this charge is common to both suppliers.
- (2) The duty of Rs. 30 per ton on structural steel is increased to Rs. 40 per ton on forging material.
- (3) The portion of work that goes to form the underframe of the vehicle has to be reckoned as being work of a slightly more expensive nature than average structural work.
- (4) Forgings cost even more to make than the underframe.
- (5) Assembling the wagon and completely finishing it is a common charge, both operations being carried out locally.

On November 10th, 1925, we submitted tenders to the Railway Board for various types of wagons and in the *Indian Trade Journal* of February 4th, 1926, the results of these tenders were published, but the sterling f.o.b. figures were not extended into Rupees to show how a comparison was made nor was any information given of the amount of bounty allotted to the orders placed in India. Though a point we particularly noticed is that exchange was taken at 1s. 6 d. yet in the *Indian Trade Journal* of December 17th, 1925, it is stated that for comparison between Sterling and Rupee tenders exchange should be taken at 1s. 6d. to the rupee. We naturally feel, therefore, that on this point a fair comparison was not made.

However, orders were placed with us for which we are thankful but the price we had to quote to keep our men together, as we go on to explain, will barely cover our charges.

To show the facts it will be sufficient if we deal with the figures concerning one type of wagon only, and we have chosen the A-1 type, the Board having previously taken this as their basis.

The figures that went to make up the price we should have required were as follows:—

Tata Material.

	Rs. A.
(1) M. S. Plates and Sheets, 36 cwts.	295 0
(2) Rolled Sections, 51 cwts.	368 0
(3) Forging material, 36 cwts.	259 0
(4) Horn cheeks, 1½ cwt.	11 0
	<hr/>
	933 0

British material at 1s. 6d. exchange.

	Rs. A.
(5) Axle boxes	176 0
(6) Bearing springs	174 0
(7) Buffers	171 0
(8) Vacuum brakes	278 12
(9) Screw couplings	49 8
(10) Buffers and draw springs	101 4
(11) Diagonals	116 0
(12) Bolts, nuts and rivets	200 0
	1,266 8

Summary of cost.

	Rs. A.
Total material	2,199 8
Trade expenses on material, 5 per cent.	110 0
Labour	650 0
Trade expenses on labour, 80 per cent.	520 0
	3,479 8
Profit	200 0
	3,679 8

In January 1925, the lowest British tender for an A-1 wagon was £180-10-0, f.o.b., which at 1s. 6d. exchange, erected in India, would amount to Rs. 3,277. There was every indication that the lowest British tender in November 1925 would be certainly not more and probably less than £180-10-0 f.o.b. actually as we see now it was £176 f.o.b. subject to a further proportionate reduction under certain conditions.

It would, therefore, have been useless submitting a tender based on our cost *plus* Rs. 200 per wagon profit, so we cut out the profit and quoted Rs. 3,485.

Similarly for the A-2 wagon we quoted Rs. 3,573 against a cost *plus* Rs. 200 per wagon profit of Rs. 3,767.

The British figure £176 f.o.b. we take to represent Rs. 3,139 erected in India made up as follows:—

	£
Price f.o.b.	176
Less proportionate reduction	3-8
	172-2
Freight	19-2
	191-4
	Rs.
Equivalent in rupee at 1s. 6-5/32d. exchange	2,530
Duty 10 per cent.	253
	2,783
Landing	31
	2,814
Erection	325
	3,139

The proportionate reduction taken into account represents Rs. 55, so if this is not allowed for the British price becomes Rs. 3,194.

It is essential to investigate the question of costs still further for if we now compare the British and local costs in detail side by side at say, exchange 1s. 6d. we arrive at the following:—

—	British Wagon.		Local Wagon.	
		Rs.		Rs.
<i>Material.</i>				
Fittings . . . . .	...	1,139	...	1,139
Duty	10 per cent. .	113	10 per cent. .	113
Structural shapes, plates and sheets	4·4 tons at 120 per ton.	528	4·4 tons at 120 per ton.	528
Duty	10 per cent. .	53	Rs. 30 per ton	132
Forging material	1·8 tons at 120 per ton.	216	1·8 tons at 120 per ton.	216
Duty	10 per cent. .	22	Rs. 40 per ton	72
TOTAL MATERIAL . . . . .	...	2,071	...	2,200
<i>Labour.</i>				
Fabricating	4·4 tons at £7 = Rs. 92·12 per ton.	408	Rs. 154 per ton	677·6
Duty	10 per cent. .	41	Nil.	...
Making Forgings	1·8 tons at £12 = Rs. 159 per ton.	286·2	Rs. 264 per ton	475·2
Duty	10 per cent. .	29	Nil.	...
Erection . . . . .	...	325	...	325
TOTAL LABOUR . . . . .	...	1,089·2	...	1,477·8
TOTAL COST . . . . .	...	3,160·2	...	3,677·8

The British figure in this case is Rs. 3,160 and though it does not come exactly to the figure Rs. 3,194 on page 15 it is sufficiently close to show the relative material and labour costs of the British and local wagons under the essential headings.

It can be seen from the above that on material, owing to the specific duty on steel, the local manufacturer is at a disadvantage of Rs. 129.

Now, if we assume there is no duty on steel and no 10 per cent. duty on wagons, the two costs are as follows:—

	British. Rs.	Local. Rs.
Fittings	1,139	1,139
Structural shapes, plates and sheets .	528	528
Forging material	216	216
	<u>1,883</u>	<u>1,883</u>
Fabricating	408	677.6
Making forging	286.2	475.2
Erection	325	325
	<u>2,902.2</u>	<u>3,360.8</u>

However to arrive at the dutiable amount on the British wagon, the cost of landing and erection, *viz.*, Rs. 356, must be deducted making Rs. 2,546.2 as the c.f.i. cost against the local figure Rs. 3,004.8 after deducting the same Rs. 356. A difference of Rs. 458.6 per wagon or 18 per cent.

We make the cost of a local underframe to be Rs. 10,269 made up as follows:—

	Rs.
Tata material as per List A attached (page 18)	2,130
British material at 1s. 6d. exchange as per List A attached (page 18)	5,006
	<u>7,136</u>
Trade expenses on material, 5 per cent.	357
Labour	1,290
Trade expenses on labour, 80 per cent.	1,032
	<u>9,815</u>
Profit	454
	<u>10,269</u>

In the same way the figures for a standard imported bogie coaching underframe may be reckoned as under:—

	£
Price f.o.b. of a 67 ft. underframe	540
Freight and charges	40
	<u>580</u>
	Rs.
Equivalent rupee price at 1s. 6d. exchange	7,733
Duty 10 per cent.	773
Landing	153
Erection	350
	<u>9,009</u>

Reducing the price Rs. 9,009 to its elements of cost of material and labour and comparing it side by side with the cost of a local underframe, the following differences will be arrived at:—

Underframes.

—	British Cost.		Local Cost.	
		Rs.		Rs.
<i>Material.</i>				
Fittings . . . . .	...	4,551	..	4,551
Duty	10 per cent.	455	10 per cent.	455
Structural shapes, and plates	95 tons at 110s. per ton.	1,045	95 tons at 110s. per ton.	1,045
Duty	10 per cent.	1045	Rs. 30 per ton	285
Forging material	5 tons at 120s. per ton.	600	5 tons at 120s. per ton.	600
Duty	10 per cent.	60	Rs. 40 per ton	200
	...	6,815.5	...	7,136
<i>Labour.</i>				
Fabricating Underframes	95 tons at £27 = Rs. 92-12 per ton.	881	Rs. 154 per ton	1,463
Duty	10 per cent.	88	Nil.	...
Making Forgings	5 tons at £12 = Rs. 159 per ton.	795	Rs. 264 per ton	1,320
Duty	10 per cent.	79.5	Nil.	...
Erection . . . . .	...	350	...	350
TOTAL . . . . .	...	2,193.5	...	3,133
TOTAL COST . . . . .	...	9,009	...	10,269

In this case owing to the specific duty on steel the local manufacturer is at a disadvantage of Rs. 320-8 on the cost of material.

Now, if we again assume no duty on steel and no 10 per cent. duty on underframes, the two costs are as follows:—

	British.	Local.
	Rs.	Rs.
Fittings	4,551	4,551
Structural shapes and plates	1,045	1,045
Forging material	600	600
	6,196	6,196
Fabricating underframes	881	1,463
Making fittings	795	1,320
Erection	350	350
	8,222	9,329

Similarly to arrive at the dutiable amount the cost of landing and erection, viz., Rs. 503 must be deducted making Rs. 7,719 as the c.f.i. cost against the local figure Rs. 8,826 after deducting the same Rs. 506.

A difference of Rs. 1,107 per underframe or 14·3 per cent.

General.

Any support given by a country towards the establishment of a steel industry on a commercial basis is justifiable on two major counts.

(1) *For its commercial value.*—Such an industry converts large quantities of valueless ores into profitable material and in the process provides a living for great numbers of people and furnishes thousands of tons of freight for railways.

(2) In times of isolation such an industry has an inestimable value if the country can rely on the industry to produce structural steels up to British Standard Specifications and on an *Engineering industry to fabricate such material.*

It will be seen from the above that the best results from the steel industry can only be got if there is an efficient engineering industry in existence to utilize its products. This being so, the engineering industry must be considered as a supplement of the steel industry and as such cannot be neglected.

The following paragraph is an extract from the "Statesman," dated the 5th May 1926, on the subject of Stores purchases:—

"Bombay merchants on Customs refund."

"Bombay, May 3rd.

"The Committee of the Indian Merchants' Chamber have addressed the Government of Bombay drawing their attention to the fact that the system of refund of Customs Duty on stores imported on Government account was acting as a temptation for purchasing the stores abroad to the detriment of indigenous industries, and emphasising the urgency of making rules for purchasing all stores by rupee tenders in the country, as this was the only way in which Indian trade and industry could have a fair play as against foreign competition."

We attach the utmost importance to a rupee tender for all and payment on delivery in India for we are still convinced that the various purchasing officers have not the necessary information beside them to discriminate between the exact costs of goods purchased f.o.b. and those delivered at site in India. In addition to which payment f.o.b. gives a distinct preference to the manufacturers abroad.

Any assistance by way of a bounty on wagons and underframes as administered at present carries with it an element of chance and uncertainty that should not exist. Therefore we have always maintained and still maintain that any protection given should be in the form of a duty.

To summarise our conclusions we suggest that assistance required by our industry is as follows:—

- (1) Structural steel bars, shapes and plates to enter the country free any protection given to the steel industry to be in the form of a bounty. If this on financial grounds is impossible then the duty on steel should be kept as low as possible and the balance made good by a bounty.
- (2) Impose a Tariff of 25 per cent. on fabricated steel when steel is duty free.

- (3) Impose a Tariff of 20 per cent. on wagons when steel is duty free.
- (4) Impose a Tariff of 15 per cent. on underframes when steel is duty free.
- (5) Government to refrain as far as possible from entering into competition with private enterprise.
- (6) All Government requirements to be purchased at rupee prices, for delivery in India in the condition required by purchaser as f.o.b. purchases cause Government to enter into competition with private enterprise in all the intermediate stages between delivery f.o.b. and bringing such purchases into use in India.

4. MESSRS. PARRY'S ENGINEERING, LIMITED.

Representation, dated the 14th May 1926.

We have the honour to acknowledge receipt of your communication, dated 16th April 1926.

In our letter, dated 8th July 1925, we submitted evidence relating to the sections of the present Import Tariff Schedule II which affect our manufactures. At that time the disadvantages from which we were suffering were in part due to the rate of exchange benefitting the importer of tipping wagons. The rate of exchange has, however, remained about the same throughout the past 9 months and while the cost of raw material has been somewhat reduced, the accompanying statements show our position as manufacturers to be more unsatisfactory than at the time when last we had the honour of addressing your Board.

We submit the following statements:—

1. Statement showing comparison between selling rates of Parry's wagons and imported wagons with duty increased to 50 per cent. *ad valorem*.
2. Statement of quantities of steel sections in tipping wagons, etc.
3. Comparison of total duty included in wagons manufactured by us and in imported wagons.
4. Comparison of duty payable on coal tubs and switches.

The figures we give of cost of steel are based on lowest imported rates, irrespective of any stocks which have been purchased at rates higher than those prevailing at present. Our selling prices bear no relation to our actual gross costs as in order to retain our position we have been compelled to reduce our price below a figure which would cover all overhead charges.

We again place before you the following figures showing present tariff rates have made our position still worse during the last 9 months:—

Tipping wagons sold second half, 1923	748
Tipping wagons sold first half, 1924	525
Tipping wagons sold second half, 1924	452
Tipping wagons sold first half, 1925	419
Tipping wagons sold second half, 1925	167

We submit the enclosed statements as indicating that the duty on imported wagons would require to be increased at least to 50 per cent. *ad valorem* before we can compete with the imported standard article in the open market.

Enclosure No. 1.

Statement showing comparison between selling rates of Parri's wagons and imported wagons with duty increased to 50 per cent. ad valorem.

	Rs.
Continental wagons can now be imported at a price	
• of £5-10-0 c.i.f. equal to approximately	73
Present duty at 25 per cent.	18-25
Landing and clearing	1-5
(a) Total landed cost	92-75
(b) Our present average selling price is Rs. 133.	
Assuming duty on imported wagons at 50 per cent. We have—	Rs.
C.i.f. cost	73
Duty 50 per cent.	36-5
Landing and clearing	1-5
(c) Resulting landed cost	111-0

It will be seen from the above that an increase of duty from 25 per cent. to 50 per cent., while giving us some assistance, would still leave the advantage with the imported wagon, even allowing for a reduction in our manufacturing costs through a possible increase in business.

Enclosure No. 2.

Statement of approximate gross quantities of steel in tipping wagons, coal tubs and switches.

	Standard Tipping Wagon. Cwt.	Coal Tub. Cwt.
Angles	1.25	.5
Channels	1.75	1.5
Sheets	2.5	3.0
Flats . . . . .	.25	1.0
Rounds . . . . .	.5	.5
	(a) 6.25	(b) 6.5

18-lb. 2 ft. gauge switch.
16' 6" long.

	Cwt.
Rails	4.4
Steel sleepers	1.1
Flats . . . . .	.05
Miscellaneous . . . . .	.55
	(c) 6.1

Enclosure No. 3.

TIPPING WAGONS.

Comparison of duty included in wagons manufactured by us and in imported wagons.

	1923.	1924.	1925.	1926.
	Rs.	Rs.	Rs.	Rs.
Average selling price of "Parry" wagon	100	149	142	133
Approximate cost of steel per wagon	71	60	54	45
Approximate duty included in above cost of steel.	6	12	12	12
Average selling price of imported wagons	143	120	115	106
Duty paid per imported wagon	19	24	23	18

N.B.—These figures show that while both importers and manufacturers in India have reduced manufacturing cost, importers have in addition benefited through a reduction in duty payable of Rs. 5 per wagon against a fixed rate of Rs. 12 per wagon payable by manufacturers, and the position of the latter becomes more acute as prices of raw material fall.

Enclosure No. 4.

COAL TUBS.

Comparison of duty paid on materials for manufacture of coal tubs and on imported tubs and switches.

	1923.	1924.	1925.	1926.
	Rs.	Rs.	Rs.	Rs. A. P.
(a) Average selling price of "Parry" tubs	140	135	120	117 0 0
(b) Approximate cost of steel per tub	54	51	41	32 0 0
(c) Approximate duty included in above cost of steel.	5	10	10	10 0 0
(d) Average selling price of imported tubs	120	110	100	95 0 0
(e) Duty included in imported wagons	16	22	20	16 0 0
<i>18-lb. Switches.</i>				
(a) Average selling price of "Parry" switches	142	115	108	90 0 0
(b) Approximate cost of steel per switch	60	45	40	36 0 0
(c) Approximate duty included in above cost of steel.	6	11	10	10 0 0
(d) Average selling price of imported switch	110	95	85	80 0 0
(e) Duty included in imported price	14	19	17	16 8 0

XI.—Questionnaires issued by the Tariff Board to the Railway Board and Railways.

1. *Railway Wagons.*

1. What is the total number of wagons and coaches used by your railway on the broad and metre gauges respectively? How many of these are of the main types?

2. Please state the present position in regard to the standardisation of types both of wagons and coaches and whether your Company contemplates a reduction in the number of types and if so, to what extent.

3. Please state—

(a) your requirements since 1923-24 of each type of wagon and coach, or

(b) your requirements in 1926-27 and

(c) your average requirements for each of the five years subsequent to 1926-27 in so far as it may now be possible to estimate them.

4. Please furnish the Board with a statement containing the following particulars as regards the purchase by you since 1922-23 of each type of wagon and underframe:—

(1) Date on which the tenders were opened.

(2) Type of wagon or underframe for which tenders were sent in and whether broad gauge or metre gauge.

(3) Number of units of each class stated in the call for tenders.

(4) The three lowest British tenders.

(5) The three lowest Continental or American tenders and the country from which they were sent in.

(6) The Indian tenders and the names of the firms tendering.

(7) The price and other conditions subject to which the order was placed and the name of the firm to which it was given.

(8) The number of units for which the order was actually placed.

N.B.—1. If any of the British, Continental or American tenders were ruled out on grounds other than price they should be excluded in determining which tenders should be treated as the three lowest.

2. In order that the prices tendered by European or American firms may be comparable with the Indian tenders, certain additions, *e.g.*, for lighting equipment, hand brakes, step irons and the like, have to be made to the price actually tendered by the foreign manufacturer and the prices entered in the statements should indicate and include the necessary adjustments.

5. With reference to clause (7) of question 4, please give the lowest British, Continental and American prices for each type of wagon and underframe in the following form:—

(a) Price *f.o.b.* port (in sterling).

(b) Freight, insurance and freight brokerage (in sterling).

- (c) Total c.i.f. price (in rupees).
 (d) Rate of exchange taken for conversion purposes.
 (e) Customs duty (in rupees).
 (f) Landing, wharfage and port charges (in rupees).
 (g) Estimated cost of erection (in rupees) in the following form:—
 1. Labour, etc.
 2. Stores.
 3. Supervision, overhead charges, etc.
 (h) Total cost (in rupees).

6. Do you build wagons or carriage underframes in your own workshops? If so, please give the present cost excluding that of wheels and axles of a typical unit of each class of (a) wagon completely erected and ready to run and (b) underframe, under the following headings:—

I. WORKS COSTS.

Type and description of $\frac{\text{Wagon, B.G., M.G.}}{\text{Underframe, B.G., M.G.}}$

Weight. Rate. Value.

1. Materials, e.g.—

Steel, Indian			
Steel, Imported British			
Steel, Imported Continental			
Castings, Indian			
Castings, Imported British			
Castings, Imported Continental			
Fittings			
Other materials			
Stores, etc.			

2. Cost above materials—

Power			
Fuel			
Labour			
Repairs			
General works supervision			
Nett cost per unit of output			
Total number of units of each type turned out in the year.			

7. Please state the total quantities, weight and price per set of wheels and axles—

- (a) British,
 (b) Continental,

purchased by your railway for each year from 1922-23 to 1925-26. In the case of Continental wheels and axles please distinguish the country of origin.

8. For both British and Continental wheels and axles, kindly state, where possible, the sterling f.o.b. prices, charges for freight, landing, etc., separately. If this is not possible, kindly state the c.i.f. price in sterling.

9. (a) If you have purchased or propose to purchase Continental wheels and axles, kindly state fully the considerations which have influenced you in doing so.

(b) What specifications, if any, are prescribed for Continental wheels and axles? Are any arrangements made for the inspection of such wheels and axles during manufacture? What arrangements, if any, are made for the testing of such wheels and axles in the country of origin?

10. What has been your experience in regard to the quality of Continental wheels and axles?

11. Has any progress been made since the Board's enquiry in 1923-24 towards the adoption for wagon axles, tyres and springs of the alternative British standard specifications or any other specifications which permit the use of basic open hearth steel for these purposes? If not, why not?*

12. A proposal has been made for the abolition of the system of bounties now in vogue and for the substitution of an *ad valorem* or a specific duty on imported wagons and underframes. In the event of the proposal being accepted, please state to what extent the annual capital or revenue expenditure of your railway would be increased for every Rs. 10 of duty levied on a wagon or an underframe on the assumption that the price was increased to the full extent of the duty.

13. Please state whether, in your opinion, the wagon building industry in India has now reached a stage when it can efficiently meet most of your requirements in regard to wagons and underframes. If you consider that it has not done so, please state in what respect you consider that it still falls short of the requisite standard.

14. Please state to what extent your requirements as to wagons and underframes are obtained through the Railway Board.

15. Please describe briefly the procedure followed in the purchase of wagons and carriage underframes when it is effected without the intervention of the Railway Board and state how far the rules for the purchase of articles for the public service issued by the Government of India are applicable to, or are followed by, your railway.

* *Vide* questionnaire II (c) dated 26th September 1923, page viii, Volume III of the evidence recorded during the enquiry into the Steel Industry.

2. *Locomotives.*

1. What is the total number of locomotives used by your railway on the broad and metre gauges respectively? What are the main types of these and how many locomotives are there of each type?

2. Please state the present position in regard to the standardisation of types of locomotives and whether your Company contemplates a reduction in the number of types.

3. Please state—

- (a) your requirements since 1923-24 of each type of locomotive,
- (b) your requirements in 1926-27, and
- (c) your average requirements for each of the five years subsequent to 1926-27 in so far as it may now be possible to estimate them.

4. Please furnish the Board with a statement containing the following particulars as regards the purchase by you since 1922-23 of each type of locomotive:—

- (1) Date on which the tenders were opened.
- (2) Type of locomotive for which tenders were sent in and whether broad gauge or metre gauge.
- (3) Number of units of each class stated in the call for tenders.
- (4) The tenders received.
- (5) The price at which and other conditions subject to which the order was placed and the name of the firm to which it was given.
- (6) The number of units for which the order was actually placed.

N.B.—If the locomotives are not received complete and ready to run, please state exactly what additions have to be made to the price quoted in the tenders in order to arrive at the price of the complete locomotive.

5. With reference to clause (5) of question 4, please give the particulars of the prices quoted in the tenders in the following form:—

- (a) Price f.o.b. port (in sterling).
- (b) Freight, insurance and freight brokerage (in sterling).
- (c) Total c.i.f. price (in rupees).
- (d) Rate of exchange taken for conversion purposes.
- (e) Customs duty (in rupees).
- (f) Landing, wharfage and port charges (in rupees).
- (g) Estimated cost of erection (in rupees) in the following form:—

- 1. Labour, etc.
- 2. Stores.
- 3. Supervision, overhead charges, etc.

- (h) Total cost (in rupees).

6. Do you build locomotives in your own workshops? If so, please give the cost of a typical unit of each under the following headings:—

1. WORKS COSTS.

Type and description of locomotive.

	Weight.	Rate.	Value.
1. Materials, <i>e.g.</i> —			
Steel, Indian			
Steel, Imported British			
Steel, Imported Continental			
Castings, Indian			
Castings, Imported British			
Castings, Imported Continental			
Fittings			
Other materials			
Stores, etc.			
2. Cost above materials—			
Power			
Fuel			
Labour			
Repairs			
General works supervision			
Nett cost per unit of output			
Total number of units of each type turned out in the year.			

7. Please state to what extent your requirements as to locomotive are obtained through the Railway Board.

8. Please describe briefly the procedure followed in the purchase of locomotives when it is effected without the intervention of the Railway Board.

9. The Peninsular Locomotive Company have stated that the requirements of the Government Railways for spare parts for locomotives would keep several factories of the size of the Peninsular Locomotive Company's works in full employment. The Tariff Board would be glad to know—

- (1) if your railway consider this statement correct;
- (2) the policy of your railway with regard to the manufacture of spare parts for locomotives;
- (3) to what extent your railway is prepared to place orders for these spare parts with outside firms provided the firms could efficiently manufacture them.

XII.—Replies to questionnaires regarding Railway Wagons.

1. EAST INDIAN RAILWAY.

Letter, dated the 21st June 1926, giving replies to questionnaire concerning wagons.

With reference to letter No. 307, dated 29th May 1926, regarding the questionnaire concerning wagons, I beg to reply as follows:—

1. Total number of coaches and wagons on 31st March 1926 is as follows:—

Coaches—

Bogies	1,764
Four-wheelers	2,044

Wagons—

Bogies	381
Four-wheelers	54,887

Types of the stock are stated in the enclosed statement.*

3. (b) Requirements during the current financial year are also stated in the statement referred to above.

6. Wagons or carriage underframes are not built in the Railway workshops. They are either purchased locally from Contractors or obtained on indent through the Director General, London.

7 and 8. See the Railway Board's reply to paragraph 4.

10. Quite satisfactory if inspected by the Consulting Engineers to the Government of India.

The Railway Board in the enclosed copy of their letter No. 3450-S., dated 8th June 1926, state that they will answer questions 2, 3 (c), 4, 5, 9 and 11 to 15 on behalf of the State-worked Railways.

Copy of letter No. 3450-S., dated 8th June 1926, from the Secretary, Railway Board, to the Agent, E. I. Railway, Calcutta.

With reference to Tariff Board's questionnaire regarding wagons, I am directed to inform you that the Secretary, Tariff Board, is being advised that the Railway Board will answer questions 2, 3 (c), 4, 5, 9 and 11 to 15 on behalf of the State-worked Railways. The above questions should, therefore, not be answered by you.

2. I am to add that a copy of your replies to the Tariff Board to the questionnaires on—

- (i) rails and fishplates,
- (ii) materials, other than rails,
- (iii) steel castings from locomotives, wagons and carriages, and
- (iv) wagons,

may also be furnished to the Railway Board at an early date.

* Not printed.

2. EASTERN BENGAL RAILWAY.

Letter, dated the 19th June 1926.

With reference to your letter No. 307, dated the 29th May 1926, I enclose herewith a statement containing the information required by the Tariff Board on questions concerning wagons, etc.

Replies to questionnaire by the Tariff Board concerning wagons, etc.

1.

Coaching Stock on 31st May 1926.

	No. on line.	No. of main types.
<i>Broad Gauge.</i>		
Four-wheeled	336	302
Six-wheeled	—	—
Bogie	503	372
<i>Metre Gauge.</i>		
Four-wheeled	466	376
Six-wheeled	78	67
Bogie	503	433

Goods Stock.

<i>Broad Gauge.</i>		
Four-wheeled	8,561	4,097
Six-wheeled	12	—
Bogie	77	77
<i>Metre Gauge.</i>		
Four-wheeled	3,434	1,990
Six-wheeled	64	—
Bogie	77	77

3. (a) Stock provided in the Programme for 1923-24—*Broad Gauge.*—

Coaching Stock.

Nil.

Goods.

	Additions.
A-3 type wagons	50

PROGRAMME FOR 1924-25.

Coaching Stock.

	Additions.	Replacements.
<i>Broad Gauge.</i>		
1st, 2nd and Inter Bogie	—	1
1st and 2nd Class Bogie	7	3
Inter and 3rd Class Bogie	4	7
3rd Class Bogie	6	11
3rd and Brake	—	2
3rd, Luggage and Brake Bogie	6	6
Horse Boxes	—	12
TOTAL	23	42

*Goods Stock.**Nil.*

PROGRAMME FOR 1925-26.

Coaching Stock.

<i>Broad Gauge.</i>	Additions.	Replacements.
1st, 2nd and Inter Bogie	3	—
1st and 2nd Class Bogie	—	2
Inter and 3rd Class Bogie	3	2
3rd Class Bogie	6	3
3rd and Brake Bogie	6	6
Luggage Van, 4-wheeler	—	26
TOTAL	18	33

*Goods Stock.**Nil.*

Stock provided in 1923-24, 1924-25, 1925-26:—

*Additions and Replacements.**Metre Gauge.*

Coaching Stock	<i>Nil.</i>
Goods Stock	<i>Nil.</i>

3. (b) No. and description of coaches provides in 1926-27 programme:—

Coaching Stock.

<i>Broad Gauge.</i>	Additions.	Replacements.
1st, 2nd and Inter Bogie	3	—
1st and 2nd Class Bogie	4	2
Inter and 3rd Class Bogie (through service)	5	2
Inter and 3rd Class Bogie (lateral)	9	3
3rd and Brake Bogie	6	—
Luggage Vans, 4-wheelers	—	22
Tourist Car Bogie	—	1
Smoking Saloon Bogie	—	1
Luggage Vans Bogie	—	2
Tourist Car, 4-wheeler	—	2
Ambulance Van	—	1
TOTAL	27	36

*Metre Gauge.—Nil.**Goods Stock.**Broad Gauge.*

Relief Train, viz., 3 Tools Vans, 1 Brake and Staff and 1 Luggage and Brake	5	—
Timber Truck Bogie	—	50
Boiler Truck Bogie	—	1
Special Stock (Test Wagon)	—	1
TOTAL	5	52

<i>Metre Gauge.</i>	Additions.	Replacements.
Timber Trucks Bogie	—	25
Boiler Truck Bogie	—	1
Special Stock	—	4
	—	—
TOTAL	—	30

6. We do not build wagon or carriage underframes in our workshops.

7 and 8. Please see statement attached.

10. These have not been sufficiently long in service to enable this Administration to form an opinion. So far they have given no trouble.

Statement showing f.o.b. Prices, Freight, etc., of Wheels and Axles purchased in 1922-23 to 1925-26.

Size of wheels and journal.	Quantity.	Country of origin.	F.o.b. prices.	Approximate weight of each.	Freight charges.	Port charges including landing, etc.	Customs duty.
			£ s. d.	T. Cwt. Qr.	£ s. d.	Rs. A. P.	Rs. A. P.
1922-23.							
	Pairs.						
10" x 5"	52	British	4,132 0 0	1 3 0	172 18 8	175 0 0	Nil.
10" x 5"	100	Do.	4,300 0 0	1 3 0	332 16 11	313 14 0	"
10" x 5"	60	German	2,250 0 0	1 3 0	87 11 11	195 0 0	"
7" x 4"	12	Do.	241 10 0	0 11 3	16 3 1	16 0 0	"
10" x 5"	23	Do.	414 0 0	1 3 0	31 1 0	74 0 0	"
10" x 5½"	8	Do.	144 0 0	1 5 0	13 0 0	24 0 0	"
10" x 4½"	30	Do.	540 0 0	1 0 0	39 16 0	95 0 0	"
9" x 4½"	200	Do.	3,600 0 0	0 18 0	270 0 0	625 0 0	"
10" x 5"	40	Do.	1,720 0 0	1 3 0	54 0 0	190 0 0	"
7" x 4"	80	Do.	1,690 0 0	0 11 3	92 0 0	100 0 0	"
1923-24.							
10" x 5½"	260	British	10,611 11 6	1 5 0	870 17 0	845 0 0	Nil.
10" x 5½"	100	Do.	4,081 7 6	1 5 0	335 18 9	325 0 0	"
10" x 5½"	100	Do.	3,912 10 0	1 5 0	332 14 2	325 0 0	"
7" x 4"	12	German	261 0 0	0 11 3	16 4 0	15 0 0	"
1924-25.							
10" x 5"	212	German	4,642 16 0	1 3 0	277 11 0	729 4 0	6,837 10 0
1925-26.							
10" x 5½"	28	German	609 0 0	1 5 0	64 15 0	104 0 0	806 14 0
10" x 5½"	72	Do.	1,586 0 0	1 8 0	166 9 9	262 0 0	2,319 2 0
10" x 5"	1,000 Nos.	Do.	14,300 0 0	1 3 0	788 13 10	1,248 8 0	10,625 10 0

3. GREAT INDIAN PENINSULA RAILWAY.

Letter, dated the 17th June 1926, giving replies to questionnaire regarding wagons.

With reference to your letter No. 307, dated the 29th May 1926, herewith six copies of my answers to the questionnaire regarding wagons, etc.

2. In this connection I extract below from the Railway Board's No. 3450-S. of the 8th June 1926 to me—

“With reference to Tariff Board's questionnaire regarding wagons, I am directed to inform you that the Secretary, Tariff Board, is being advised that the Railway Board will answer questions 2, 3 (c), 4, 5, 9 and 11 to 15 on behalf of the State-worked Railways. The above questions should, therefore, not be answered by you.”

Answers to questionnaire issued by the Tariff Board with their No. 307, dated the 29th May 1926.

1.

		Wagons.	Coaches.
Broad Gauge	{ Bogies	1,686	1,242
	{ 4-wheelers	19,497	1,353
Metre Gauge	{ Bogies	Nil.	Nil.
	{ 4-wheelers	Nil.	Nil.
Narrow Gauge	{ Bogies	174	42
	{ 4-wheelers	39	7

Of the above, 20,332 wagons and 2,231 coaches are of the main type.

2. Railway Board will answer this.

3. (a) Our requirements since 1923-24 have been as under:—

	1923-24.		1924-25.		1925-26.	
	Goods.	Coaching.	Goods.	Coaching.	Goods.	Coaching.
Bogies	207	Nil.	7	101	Nil.	100
4-wheelers	1,025	Nil.	1,300	72	800	2

(b) Our requirements for 1926-27 are:—

Goods Coaching.

Bogies	Nil.	106
4-wheelers	877	4

4. Railway Board will answer this.

5. Railway Board will answer this.

6. Only a few underframes have been built in the past.

7. The total quantities of wheels and axles, total weight and price per set (that is, per 4-wheeled wagon or coach set) is as follows:—

	Year.	Total Quantity.	Total Weight.	Price per set.
		Pairs.	Tons.	£ s. d.
British	1922-23	2,482	3,227	76 18 0
	1923-24	2,212	2,876	79 14 0
	1924-25	1,926	2,504	61 6 0
	1925-26	2,120	2,756	55 9 0
Continental (Germany).	1922-23	400	520	62 19 2
	1923-24	Nil.	...	...
	1924-25	Nil.	...	...
	1925-26	134	174	44 18 0

8. The prices quoted above are all f. o. b. I regret I am unable to state charges for freight, landing, etc., separately. 10 per cent. is usually allowed to cover freight and insurance but does not include customs and landing charges, customs being 10 per cent. *ad valorem*.

9. Railway Board will answer this.

10. Satisfactory.

11, 12, 13, 14 and 15. Railway Board will answer these.

4. NORTH WESTERN RAILWAY.

Letter to the Tariff Board, dated the 23rd June 1926, giving replies to questionnaire regarding wagons.

With reference to your letter No. 307, dated 20th May 1926, I send, herewith, 7 copies of answers to questions Nos. 1, 3 (a) and (b), 6, 7, 8 and 10 of the questionnaire regarding wagons. The remaining questions, viz. Nos. 2, 3 (c), 4, 5, 9 and 11 to 15 will be answered by the Railway Board.

1. No metre gauge lines are under the control of this Railway. We had the following broad and narrow gauge stock on the line on 1st April 1926:—

	Bogies.	Four-wheelers.	TOTAL.
<i>Broad Gauge.</i>			
Coaching	1,808	1,822	3,630
Goods	724	29,316	30,040
TOTAL	2,532	31,138	33,670
<i>Narrow Gauge.</i>			
Coaching	193	101	294
Goods	457	301	758
TOTAL	650	402	1,052

The second part of the question is not understood.

3. Our requirements during the year 1926-27 are given below:—

Item No.	Description.	NUMBER REQUIRED.	
		Additions.	Renewals.
<i>Coaching Stock.</i>			
1	Bogie steel carriages (complete rakes)	11 x 10	...
2	Bogie saloon carriage R. A. . . . .	...	2
3	Bogie tourist car	1	...
4	Bogie Compo: I and II . . . . .	...	10
5	Bogie Inter Class	10	...
6	Bogie Inter and III	20	...
7	.. .. .	...	15
8	Bogie "Third Class"	50	...
9	.. .. .	...	15
10	Bogie brake luggage and III	35	...
11	.. .. .	...	10
12	Ordinary "Prison Vans" . . . . .	...	5
13	Horse Boxes . . . . .	...	25
14	Covered carriage trucks . . . . .	...	10
15	Cold storage vans	5	...
16	Freight vans	35	...
17	Store vans . . . . .	...	5
	Total in number	266	97
	Total in units	492	149
		641	

Item No.	Description.	NUMBER REQUIRED.	
		Additions.	Renewals.
<i>Goods Stock.</i>			
1	Ordinary covered goods wagons A. 1 type	923	...
2	Bogie low sided . . . . .	...	25
3	Bogie high sided	20	...
4	Ordinary low sided C 3 type . . . . .	...	115
5	Oil tanks J. 1 type	10	...
6	„ „ (petrol)	10	...
7	Bogie rail and timber trucks B. D. 1 type . . . . .	...	16
8	Water tanks six-wheeler . . . . .	...	9
9	Creosote oil tanks six-wheeler	6	...
10	Travelling hand crane 25 tons	1	...
11	Crane steam portable 5 tons	1	...
Total in number		971	165
Total in units		997	206
		1,203	

6. Neither new wagons nor carriage underframes are built in our workshops.

7 and 8. The required information is given in the attached statement and note.

: 1922-23 to 1925-26—contd.

		1925-26.					Weight per wheel.	REMARKS.
Descr.	Country of origin.	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.		
		Gene- ral pur- pose.	Works.					
				£ s. d.			C. qr. lbs.	
Wheels, C iron—								
Dia. Th								
18"	British	...	...	...	...	...	1 3 3
18"	British	...	...	...	...	...	1 2 10
	
18"	...	...	...	...	...	...	1 2 21
	
18"	...	...	...	...	...	...	1 3 24
	
18"	British	...	...	...	...	...	1 3 20
18"	Do.	...	...	...	...	...	1 3 20
18"	...	...	...	...	...	...	1 3 20
20"	British	...	...	...	...	...	2 0 4
	
20"	British	...	...	...	...	...	1 3 24
	
20"	...	...	...	...	...	...	1 3 22
	
20"	British	...	...	...	...	...	1 3 24
	
20"	...	Pairs	...	2 7 0	Pair	British	1 3 20	
20"	British	...	...	...	...	...	2 2 4
	
23"	British	...	...	...	...	...	2 1 13
	
24"	British	...	...	...	...	...	2 3 3
	
Wheels, 4 20" x 4"	British	...	...	...	...	...	1 3 3

note.

Statement showing wheels and axles purchased by the N. W. Railway from 1922-23 to 1925-26.

Description.	1922-23.					1923-24.					1924-25.					1925-26.					Weight.	REMARKS.	
	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.			
	General purpose.	Works.				General purpose.	Works.				General purpose.	Works.				General purpose.	Works.						
BROAD GAUGE.																							
Wheels and Axles	Pairs.	Pairs.	£ s. d.	Pair	British	Pairs.	Pairs.	£ s. d.	Pair	Continental (Hamburg).	...	Pairs.	Pairs.	£ s. d.	Pair	Continental (Antwerp).	Pairs.	Pairs.	£ s. d.	Pair	Continental (Antwerp).	...	
9' x 4½' Journals	...	30	37 2 6	,	Do.	250	...	40 0 0	,	British	8	Not known.	,	British	...	154	21 15 0	,	Do.	25	Cwts. per pair (i.e., 2 wheels and 1 axle).
7'-3' Centres	...	64	37 17 6	,	Do.	67	20 10 0	,	Hamburg	...	
Do. 10" x 5" Journals	...	432	40 5 0	,	Do.	132	...	35 14 0	Pair	Continental (Hamburg).	340	...	23 15 0	Pair	Continental (Antwerp).	120	...	70	21 5 0	,	Continental (Antwerp).	26	Do.
		1100	43 0 0	,	Do.	...	92	33 11 0	,	Do.	360	21 15 0	,	Do.	...	
7'-4" Centres	...	274	38 12 6	,	Do.	...	16	34 16 0	,	Do.	80	21 12 0	,	Do.	...	
		20	41 0 0	,	Do.	...	172	45 17 0	,	British	120	22 5 0	,	Hamburg	...	
Do. 10" x 5½" Journals	...	400	24 15 0	,	Continental (Hamburg).	...	28	44 5 0	,	Do.	...	198	22 12 0	Pair	Continental (Antwerp).	...	200	22 0 0	,	British	26½	Do.	* Treated by Sandberg Sorbitic process.
7'-4" Centres	...	740	39 12 6	,	British	...	...	...	...	...	...	150	23 15 0	,	British	...	787	*30 15 0	,	Continental (Antwerp).	...	
												1,578	Not known.	,	...	...	32	21 15 0	,	British	...	
																	440	23 15 0	,	Do.	...		
																	40	24 0 6	,	Do.	...		
																	587	21 12 0	,	Do.	...		
																	587	22 5 0	,	Continental (Antwerp).	...		
																	2,902	19 15 0	,	British	...		
Wheels centre	Nos.	...	5 2 10	Each	British	Nos.	400	4 7 6	Each	Continental (Hamburg).	200	...	Not known.	3 3 0	Each	Continental (Antwerp).	4	C. qr. lbs. Each wheel centre.
3'-2" dia.	400	...	5 10 0	,	British
Axles, 9' x 4½"	100	...	10 5 9	Each	British	...	...	...	...	...	500	...	6 18 0	...	Continental (Antwerp).	500	...	6 5 0	Each	Continental (Antwerp).	6	2 6
7'-3" Centres	200	...	10 11 0	,	Do.	...	...	...	...	...	...	...	...	...	...	750	...	7 6 0	,	Do.	7	3 5
Do. 10" x 5", 7'-4" Centres.	50	...	12 10 0	,	Do.	...	...	...	...	...	...	...	...	...	...	50	...	8 2 6	,	British	8	0 6
Do. 10" x 5½", do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50	...	7 11 6	,	Continental (Antwerp).	...	
NARROW GAUGE.																							
Wheels, chilled, cast iron, 20" dia. with axles.	...	16	9 7 6 to 9 18 5	Pair	British	...	...	...	...	...	...	...	...	...	...	...	40	7 5 0	Pair	British	6	3 3
																	12	7 16 3	,	Do.	6	0 0	

Statement showing wheels and axles purchased by the North Western Railway from 1922-23 to 1925-26—contd.

Description.	1922-23.					1923-24.					1924-25.					1925-26.					Weight per wheel.	REMARKS.
	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.	Number or quantity purchased for		F. O. B. price.	Unit.	Country of origin.		
	General purpose.	Works.				General purpose.	Works.				General purpose.	Works.				General purpose.	Works.					
Dia. Thread. Rough bore.	Pairs.		£ s. d.		Pairs.		£ s. d.			Pairs.		£ s. d.			Pairs.		£ s. d.			C. qr. lbs.		
Wheels, Chilled, Cast iron—																						
18" 4" 3"	10	...	2 4 0	Pair	British	30	...	2 11 0	Pair	British	...	...	2 3 0	Pair	British	...	...	...	...	...	1 3 3
18" 4" 3 1/2"	...	...	to			40	...	2 11 0	"	Do.	...	...	...	...	...	...	...	...	...	...	1 2 10
	20	...	2 10 0		Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	2 9 0			...	...	...			...	...	...			...	...	...			...
		...	to			...	...	...			...	...	...			...	...	...			...
		...	2 15 6			...	...	...			...	...	...			...	...	...			...
18" 4" 4 1/8"	...	...	...		...	50	...	2 0 6	Pair	Continental (Antwerp).	...	...	...	...	...	...	...	...	...	...	1 2 21
18" 5" 3"	180	...	2 13 0	Pair	British	50	...	2 11 0	"	...	...	...	...	...	...	...	...	...	...	...	1 3 24
		...	to			...	...	...			...	...	...			...	...	...			...
		...	3 0 0			...	...	...			...	...	...			...	...	...			...
18" 5" 3 1/2"	...	...	...		...	25	...	2 19 0	Pair	British	50	...	2 9 0	Pair	British	...	...	...	...	...	1 3 20
18" 5" 3 3/4"	...	...	...		...	...	...	...		...	50	...	2 9 0	"	Do.	...	...	...	...	...	1 3 20
18" 5" 4"	...	...	...		...	5	...	2 19 0	Pair	British	...	...	2 9 0	"	...	...	...	...	...	...	1 3 20
20" 4" 3 1/2"	40	...	2 19 6	Pair	British	39	...	2 9 0	"	Continental (Antwerp).	40	...	2 10 0	Pair	British	...	...	...	...	...	2 0 4
		...	to			...	...	...			...	...	...			...	...	...			...
		...	3 8 0			39	...	2 19 0	"	British	...	...	...			...	...	...			...
20" 4" 4 1/8"	50	...	2 14 0	"	Do.	100	...	2 9 0	"	Continental (Antwerp).	200	...	2 10 0	Pair	British	...	...	...	...	...	1 3 24
		...	to			...	...	...			...	...	...			...	...	...			...
		...	3 1 6			...	...	...			...	...	...			...	...	...			...
20" 4" 3 3/4"	30	...	2 14 0	"	Do.	160	...	2 19 0	Pair	British	...	...	...	...	...	...	...	...	...	...	1 3 22
	20	...	to			...	...	...			...	...	...			...	...	...			...
		...	3 1 6			...	...	...			...	...	...			...	...	...			...
20" 4" 4 1/4"	20	...	2 14 0	"	Do.	20	...	2 19 0	Pair	British	30	...	2 10 0	Pair	British	...	...	...	...	...	1 3 24
		...	to			...	...	...			...	...	...			...	...	...			...
		...	3 1 6			...	...	...			...	...	...			...	...	...			...
20" 4 1/2" 3 3/4"	...	...	...		...	...	...	...		...	...	...	...			...	...	...			...
20" 5 1/2" 4 1/8"	200	...	3 17 6	Pair	British	100	...	2 16 0	"	Continental (Antwerp).	300	...	3 2 0	Pair	British	Pairs 250	...	2 7 0	Pair	British	1 3 20	
		...	to			...	...	...			...	...	...			...	...	...			2 2 4
		...	3 8 0			100	...	3 15 0	"	British	...	...	...			...	...	...			...
23" 4" 3 3/4"	50	...	3 2 0	"	Do.	130	...	3 7 0	"	Do.	260	...	2 7 0	Pair	British	...	...	...	...	...	2 1 13
		...	to			...	...	...			...	...	...			...	...	...			...
		...	3 10 6			130	...	2 16 8	"	Continental (Antwerp).	...	...	...			...	...	...			...
24" 4" 3 1/4"	360	...	3 10 6	"	Do.	30	...	3 0 0	"	Do.	10	...	3 3 3	Pair	British	...	...	...	...	...	2 3 3
		...	to			...	...	...			...	...	...			...	...	...			...
		...	4 0 0			30	...	3 11 0	"	British	...	...	...			...	...	...			...
Wheels, "Powell-Brett" 20" x 4 1/4" x 4 1/8"	...	...	...		...	...	...	...		...	Nos. 100	...	4 19 6	Each	British	...	...	...	...	...	1 3 3

NOTE.—As regards Freight and other charges please see the attached note.

Note on freight and other charges.

The following charges are to be added to the f.o.b. rates shown in the statement attached, to cover charges for freight, landing, etc. :—

1. Sea freight for wheels and axles .	35s. per ton	} These are the current charges and are subject to alteration according to the revision made by the India Office and I. S. D. from time to time. On supplies received from Home through the Agency of the India Office, 3 per cent. departmental charges are paid to the Director General of Stores in lieu of the charges marked (2), (3) and (4).
2. Interest	18s. 4d. per £100	
3. Insurance	4s. 0d. per £100	
4. Freight brokerage	6d. per ton.	
5. Wharfage charges	Rs. 2-2 per ton.	
6. Handling charges	As. 10 per ton.	
7. Customs duty	(a) 10 per cent. <i>ad valorem</i>.		(a) According to Tariff Schedule.

10. We have had experience with two classes of Continental wheels, *viz.*, steel for broad gauge stock and chilled cast iron for narrow gauge stock.

Broad gauge wheels.

Continental wheels are generally of the same quality as British wheels, except in a few instances when wheels have been received for re-turning owing to sharp flanges having developed after about 6 to 9 months' service. Such has not been the case with British wheels.

Narrow gauge wheels.

We have only received one lot of Continental chilled cast iron wheels which were manufactured by Messrs. Chilled Castings, Ltd., Belgium. Out of this consignment 127 wheels had to be replaced by the makers owing to the bore of the wheels being perforated. Defects such as this have not been noticed in British made chilled cast iron wheels.

XIII.—Replies to questionnaire regarding locomotives.

1. GREAT INDIAN PENINSULA RAILWAY.

Letter to the Tariff Board, dated the 24th June 1926.

Herewith six copies of the answers of this Administration. I have been instructed by the Railway Board that they will reply to questions Nos. 2, 3 (e), 4, 5, 6, 7, 8 and 9, and therefore I should not do so.

Answers to questionnaire issued by the Tariff Board with their letter No. 334, dated the 4th June 1926.

LOCOMOTIVES.

1. We have no metre gauge. We have 1,262 broad gauge engines, the types of which are set out in the attached statement.

2. The Railway Board will answer this.

3. (a) Requirements for—

1923-24	.	.	.	.	{ 31 D-5 type (4-6-0).
					{ 27 H-5 " (2-8-0).
1924-25	.	.	.	.	Nil.
1925-26	.	.	.	.	Nil.

(b) Requirements for 1926-27	}	Branch Line Passenger type (4-6-2)—2
		Light " " " (4-6-2)—9
		Heavy " " " (4-6-2)—6
		Light Goods type (2-8-2)—7

(c) The Railway Board will answer this.

4. The Railway Board will answer this.

5. The Railway Board will answer this.

6. The Railway Board will answer this.

7. The Railway Board will answer this.

8. The Railway Board will answer this.

9. The Railway Board will answer this.

Statement showing the numbers and broad gauge types of engines on the Great Indian Peninsula Railway.

Tender or Tank.	Type.	Class.	Number owned.	Tender or Tank.	Type.	Class.	Number owned.
Tender	A-1	4 4 0	30	Tender	D-3M	4 6 0	15
"	A-2	4 4 0	40	"	D-4	4 6 0	50
"	A-3	4 4 0	4	"	D-5	4 6 0	31
"	B-1	4 4 0	10	"	E-1	4 4 2	5
"	B-2	4 4 0	34	"	F-1	2 6 0.	5
"	C-1	4 4 0	48	"	F-2	2 6 0	10
"	D-2	4 6 0	38	"	F-3	2 6 0	14
"	D-3	4 6 0	13	"	F-4	2 6 0	62

*Statement showing the numbers and broad gauge types of engines on the
Great Indian Peninsula Railway—contd.*

Tender or Tank.	Type.	Class.	Number owned.	Tender or Tank.	Type.	Class.	Number owned.
Tender	G-2	2 6 0	5	Tank	B-2	2 6 0	7
"	H-1	2 8 0	15	"	S-1	2 6 0	5
"	H-2	2 8 0	54	"	T-1	2 6 0	10
"	H-3	2 8 0	33	"	U-1	0 4 2	5
"	H-4	2 8 0	158	"	V-1	0 6 2	12
"	H-5	2 8 0	27	"	W-1	0 8 0	14
"	J-1	2 6 0	72	"	W-2	0 8 0	5
"	K-1	0 6 0	3	"	W-3	0 8 0	8
"	K-4	0 6 0	10	"	X-1	0 6 2	19
"	K-5	0 6 0	56	"	Y-1	2 8 4	10
"	K-6	0 6 0	10	"	Y-2	2 8 4	41
"	K-7	0 6 0	46	"	Y-3	0 8 4	16
"	K-8	0 6 0	51	"	Y-4	0 8 4	15
"	N-1	2 10 0	30	Tank shop engines	.	.	6
"	O-1	0 6 0	35	Tender shop engine	.	.	1
Tank	P-1	2 6 2	12				
"	R-1	2 6 0	5				
					TOTAL	.	1,262

2. MADRAS AND SOUTHERN MAHRATTA RAILWAY COMPANY,
LIMITED.

Letter, dated the 28th June 1926.

LOCOMOTIVE QUESTIONNAIRE.

With reference to your No. 334 of the 4th June 1926, I have the honour to forward herewith my replies to the questionnaire relating to locomotives.

As regards clauses (5) and (6) of question 4, a statement is attached, which gives particulars regarding locomotives ordered from 1922-23 to 1925-26 as available at present.

The remaining particulars are being gathered and a complete statement will be sent as soon as possible.

Replies to questionnaire.

LOCOMOTIVES.

Your No. 334 of 4th June 1926.

1. (a) 294 Broad Gauge Engines. 322 Metre Gauge Engines.

1. (b)			Metre Gauge.			
Type.	No.	Broad Gauge.	Type.	No.		
H	4	} To be abolished gradually.	F M	130	} Old engines to be replaced by L. S. C. types.	
J	23					
K	18					
L	14					
M	55					
N	50		P	50		
S	9	} To be abolished.	M	24		
T	9			M H	25	
U	13			G	70	
V	12			I	12	} Ghat engines for W. I. P.
W	38			A M	2	
			I M	6		
H P	2	} Experimental.	N	3		
H G	2					
C	6	} These types are being abolished.				
D	9					
E	11					
F	17					
C B	2	Motor Coach.				

2. All new engines are being ordered to L. S. C. standard types, with the exception of certain Broad Gauge Tank Engines. There is no L. S. C. standard Tank Engine.

3. Requirements since 1923-24 to end of latest quinquennial programme, 1931-32:—

	Broad Gauge.	Metre Gauge.	
1923-24	2 H. P.; 2 H. G. experimental.	5 M.	
1924-25	7 F.; 2 W.	3 P.; 4 G.	
1925-26	8 F.	9 G.; 2 L. S. C. 18.	
1926-27	12 F.	3 L. S. C. 17.	
1927-28	2 F.; 3 L. S. C. 14.	6 L. S. C. 18.	} 7 L. S. C. 17.
		10 L. S. C. 30.	
1928-29	7 L. S. C. 14.	4 L. S. C. 30.	} NOTE.—Possibly L. S. C. 18 will be substituted for 30 and 16 for 17.
1929-30	.....	16 L. S. C. 30.	
1930-31	8 L. S. C. 14; 2 L. S. C. 12.	.....
1931-32	.....	24 L. S. C. 30.	

4. (1) Engines obtained through Railway Board or Home Board—date of opening tenders not available here.

(2) See numbers and types for each year in reply to paragraph 3.

4. (3) As above.

(4) No particulars here.

(5) and (6). See attached sheet.

6. We don't build our own locomotives.

7. All orders for types standardised are Railway Board's and are included in the general call for tenders.

In 1922-23 we asked Railway Board to include Nil.

In 1923-24 Nil.

In 1924-25 2 W.; 7 F. S.

In 1925-26 8 F.S.; 9 G.

8. When informed by the Railway Board that certain engines cannot be included in the general call for tenders, our Board advertise for tenders to be submitted in London.

9. (1) We can't answer this without inspecting the Peninsular Locomotive Company's Works.

(2) The plant available in the repair shops is used for manufacturing spares for stock when the number of engines in shops is small, i.e., during the busy traffic season, when the largest number of engines possible must be kept out on line. Additional spares are purchased whenever it is considered most economical.

(3) Our requirements of spares vary greatly. When the requirements exceed what we can make economically in our repair shops, we purchase from outside firms.

5) and (6).

Year.	Engine.	Gauge.	Contractors.	Cost of the order.	Freight on the order.	Total o.i.f. in Rs.	Rate of exchange.	Customs duty.	Landing charges.	ESTIMATED COST OF ERECTION.			Total cost on line.
										Labour.	Stores.	Suspense.	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.			l.
1922-23	2 W.	B. G.	W. Beardmore & Co., London.	10,300	£ s. d. 1,084 14 0	...	...	...	...	...	...	...	...
1923-24	2 H. P.	B. G.	Baldwin & Co., America.	30,596	4,000 0 0	...	...	...	...	...	...	...	...
	2 H. G.												
	5 N.	M. G.	Germany . . .	14,500	915 19 0	...	...	...	...	...	...	...	...
1924-25	2 W.	B. G.	Vulcan Foundry, Ltd., London.	13,504	921 5 10	...	...	...	...	...	...	...	...
	7 F. S.	B. G.	Keer Stuart & Co., London.	37,926	2,459 14 0	...	...	...	...	...	...	...	...
	3 P. S.	M. G.	Hanover Locomotive Co., Germany.	6,984	570 0 10	...	...	...	...	...	...	...	...
	2 G. S.	M. G.	W. G. Bagnall & Co., London.	9,800	514 4 8	...	...	...	...	...	...	...	...
	2 G. S.	M. G.	Do.	9,800	514 14 7	...	...	...	...	...	...	...	...
1925-26	9 G. S.	M. G.	Do.	43,830	2,330 7 0	...	...	...	...	...	...	...	...
	8 F. S.	B. G.	Germany . . .	33,200	2,695 3 0	...	...	...	...	...	...	...	...

N. B.—Received ready to run.

3. EASTERN BENGAL RAILWAY.

Copy of letter No. 4882 B/W 19/94/26, from the Agent, Calcutta, to the Secretary, Tariff Board.

Reference:—Your letter No. 334, dated 4th June 1926.

Subject:—Questions concerning locomotives.

With reference to your letter quoted above, I enclose herewith a statement containing the information required by the Tariff Board on the abovementioned subject.

1. Total Nos. of locomotives in use on this Railway on 31st May 1926.

Broad Gauge.	Metre Gauge.
325	235

(Including Replaced Stock—6 Broad Gauge and 13 Metre Gauge).

The following is a list of the main types with numbers of each:—

Broad Gauge.				Metre Gauge.			
B.E.S.A.	.	.	4-4-2	7	B.E.S.A.	4-6-0 (Pass.)	58
"	.	.	4-6-0	26		4-6-0 (Mixed)	105
"	.	.	4-4-0	9		2-6-2 Tank	4
"	.	.	0-6-0	115		4-8-0	5
"	.	.	2-6-4	45			
"	.	.	2-6-2	5			172
				207			

2. Railway Board will reply to this question.

3. (a) Locomotive Stock provided for in the Programme for—

Broad Gauge.

1923-24.

Additions and Betterments Nil.

1924-25.

Additions				Nil.
Betterments—2-6-4 Type (Suburban)			6	} 10
0-6-0 " (Goods)			4	

1925-26

Additions—4-6-0 Type (Passenger)			7	} 46
Betterments—4-6-0 Type (Passenger)			18	
0-6-0 Type (Goods)			16	
2-6-4 Type (Suburban)			5	

Metre Gauge.

1923-24.

Nil.

Additions and Betterments 1924-25.

Nil.

1925-26.

Nil.

3. (b)

Broad Gauge.

1926-27.

Additions—Supersentinal Engine	1	} 13
Betterments—4-6-2 Type (Passenger)	5	
2-6-4 „ (Suburban)	5	
2-8-2 „ (Goods)	2	

Metre Gauge.

1926-27.

Additions—4-6-2 Type	2
Supersentinal engine	1
Betterments	<i>Nil.</i>

3. (c), 4, 5, 7, 8 and 9. Railway Board will reply to these questions *vide* their letter No. 214-S.-1, dated 16th June 1926.

XIV.—Questionnaire issued by the Tariff Board to the railway wagons, Locomotive and carriage underframe builders.

(Questions having reference to locomotives are intended to be answered by the Peninsular Locomotive Company only.)

1. Please give a list of the principal steel castings required for the construction of locomotives, carriages and wagons respectively. Does the following list of castings which the Hukumchand Electric Steel Works Company claim to be in a position to be able to manufacture out of scrap steel include all these classes?

(a) *Locomotive.*—Axle Boxes, Buffers, Bogie Frame Stays Motion Plates, Distance Pieces, Piston Valve Heads, Wheel centres, Horn blocks, etc.

(b) *Carriage and wagon.*—Axle Boxes, Buffers, Bogie Centre Brackets, Queen posts, Top Bolster Spring Bearings, Bottom Side Bearers, Sleeve Washers, Spring Sleeves, Spring Caps, Top and Bottom side Bearers.

2. Have any of these classes of castings been standardized so as to permit of their use in more than one type of locomotive, carriage or wagon?

3. In your opinion, is there any inherent difficulty involved in the process of manufacture or in obtaining raw material which would prevent the economic production in India of (a) these classes of castings and (b) spring steel.

4. Kindly state the total weight of (i) the principal classes of steel castings and (ii) spring steel required by you for the construction of a typical locomotive, carriage and wagon respectively.

5. Please state the total weight of (a) the principal classes of steel castings and (b) spring steel used by you since 1922-23 onwards under the following heads:—

(a) Imported as such.

(b) Manufactured in India.

6. Please state the price per cwt. paid for (i) each of the principal classes of steel castings and (ii) spring steel falling under headings (a) and (b) in question 5 for each year from 1922-23 onwards.

N.B.—1. For castings and spring steel imported from the Continent, please distinguish the country of origin.

2. For both British and Continental castings and spring steel, please state where possible the sterling f.o.b. prices and the charges for freight, landing, etc., separately. If this is not possible, please state the c.i.f. price in sterling.

7. (a) Do you contemplate the installation of plant which would enable you to manufacture the steel castings necessary for the construction of locomotives, carriages and wagons?

(b) If you are manufacturing any castings whether steel or iron in your workshop, please give the percentage of rejected castings.

8. If you have any experience of (i) steel castings, (ii) spring steel manufactured in India, please state the names of the makers and give your views in regard to the quality and workmanship compared with those of the imported article.

9. The Hukumchand Electric Steel Works in referring to the Indian wagon builders state in their representation:—

“ With one trifling exception we have not been asked even to quote for the castings required to be incorporated in these wagons. For the wagons alone 12,800 complete cast steel axle boxes had either to be imported or manufactured in this country. No orders and no enquiries for these axle boxes have come in our way.”

Please state whether this is a correct statement and if it is, your reasons for not asking for any quotations from, and for not placing any orders with, the Hukumchand Electric Steel Works Company.

XV.—Replies to questionnaire to wagon and locomotive builders.**1. PENINSULAR LOCOMOTIVE COMPANY, LIMITED.**

Letter, dated 25th May 1926 giving replies to questionnaire regarding wagons and locomotives.

We beg to acknowledge your questionnaire for wagon-cum-locomotive builders on the matter of steel castings and spring steel.

(1) A list of steel castings going into 2-8-0 type of locomotive and tender is appended herewith. Messrs. Hukumchand Electric Steel Works have written to us that they have made various locomotive parts for the North Western Railway, East Indian Railway, Great Indian Peninsula, Darjeeling-Himalaya Railway, Eastern Bengal Railway and Bengal Nagpur Railway. We were also informed that some of these railways had decided thereafter not to order these parts out from England. We are looking forward to considerable co-operation with them in future for steel castings going into locomotives.

(2) We have not in our hands the drawings of all types of locomotives used by Indian railways. When they emanate from different manufacturers, there are usually small details of design which vary. We think that the castings, which will be most likely useful in more than one type, would be those affecting the tender. Also where Driving, Leading and Training Wheels are of the same diameter the wheel centres in most cases will be interchangeable, and if the wheel centres are interchangeable the hornblocks and axleboxes would also be. We would refer the Tariff Board to the several reports of the I. R. C. A. Committee on standardization, which, we presume, would contain useful information on the subject. Unfortunately we have not ourselves got any of these reports, which are kept confidential.

(3) (a) We do not know whether there is any inherent difficulty in the process of manufacture or in obtaining raw material, which would prevent the economic production of steel castings in India. We understand that steel castings have been made by the Bombay, Baroda and Central India in Bombay and by the East Indian Railway at Jamalpur for many years. Whether this production was economic or not it is for the Tariff Board to ascertain by getting castings from these places.

(b) We are not aware that spring steel is manufactured in India.

(4) The total weight of steel castings in the 2-8-0 locomotive and tender is 16.05 tons. The steel springs on the locomotive are Main Bearing Springs (laminated). Tender Bearing Springs (laminated), Helical Springs for Draw Gear, etc. The total weight of springs on the 2-8-0 type locomotive and tender is 2.34 tons.

(5) and (6) We cannot give you any particulars of steel castings or spring steel used by us since 1922-23 as we have not been successful in our efforts to secure locomotive orders from the Railway Board and the locomotive section of this Company's works has been at a standstill since.

(7) (a) We have put the capacity of our works for the manufacture of locomotives at two hundred. But in practice for the next year or two we do not expect to average more than one hundred locomotives a year. It will not, therefore, pay us to put down a steel casting plant at our works.

(b) We are unable to give the information.

(8) In our wagon section we purchased from the Hukumchand Electric Steel Works solebar stiffening brackets, which were duly passed by the inspecting staff and accepted by the railways. We have no reason to complain of the quality.

(9) With this firm, apart from placing orders for solebar stiffening brackets, we made enquiries about axleboxes, but found that the quotation for axleboxes was very far out. The price quoted by them was Rs. 30 f.o.r. Calcutta whereas the price that we actually paid was Rs. 41-12-3 c.i.f. Calcutta for the

finished article, i.e., axleboxes with bronze bearing, etc., complete. We had to place the initial orders in a great hurry and were not in a position to spend any time in negotiations.

The other reason was that this firm had not manufactured axleboxes for any other wagon manufacturer and as we were new in the field of wagon building, we did not want to take the risk. Also they desired to give only the unfinished casting whereas the English manufacturer of axleboxes offered axleboxes with bronze bearings, etc., complete. The following extracts from the letter of our agent in London would be read with interest:—

“As regards axleboxes the Hukumchand Electric Steel Company quote Rs. 120 per set of four for machined castings but without brasses and accessories; this at 1s. 6d. per rupee works out at £9 while similarly finished boxes can be supplied from here for about £6-10-0 per set of four.”

Enclosure.

Schedule of steel castings on 2-8-0 type locomotive and tender.

- 1 Fire Door.
- 1 Frame Hind Drag Casting.
- 1 Frame Stretcher (Leading and Inter).
- 1 Frame Stretcher (Inter).
- 8 Horn Plate Clips.
- 1 Frame Stretcher (Front of Firebox).
- 2 Slide Bar Brackets.
- 4 Platform Supports.
- 2 Piston Body.
- 2 R. H. and 2 L. H. Reversing Link Carriers.
- 2 Wheel Centres (Driving).
- 4 Wheel Centres (Leading and Trailing).
- 2 Wheel Centres (Intermediate).
- 6 Axleboxes (2 L. 2 D. and 2 T.).
- 2 R. H. and L. H. Hornblocks.
- 8 Axlebox Guides.
- 2 Spring Beam Carriers.
- 2 Spring Beam Carriers.
- 6 Brackets for Springs.
- 1 Cross Stretcher between Frames of Truck.
- 2 Bogie Wheel Centres.
- 1 Pony Truck Axlebox.
- 1 Pivot of Radial Arm (Pony Truck).
- 1 Front Drag Box Casting.
- 6 Tender Wheel Centres.
- 4 Tank Supports.
- 4 Fuel Pack Supports.
- 1 Drawhook Guide.

2. MESSRS. BURN AND COMPANY, LIMITED.

Letter, dated 31st May 1926, giving replies to questionnaire regarding wagons and locomotives.

We beg to send herewith six copies of our replies to the questionnaire sent with your letter No. 250 of 15th May 1926.

Replies to Questionnaire for Wagon/Locomotive builders.

1. The following is a typical list of the Steel Castings required in Carriage and Wagon building:—

Axle-boxes, Buffer Cases and Plungers, Solebar stiffening brackets, Side Truss-beam Brackets, End Body Brackets Inner and Outer, Top and Bottom Centre Pivots, Wearing Brackets for Swing Links, Side Truss-beam Brackets Right and Left, Brake Block Hanger Brackets, Top Spring Castings, Brake Block Hanger Brackets Right and Left, Friction Blocks Bottom Outside, Bottom Spring Castings, Swing Beam Saddles.

We see no reason why all the above cannot be manufactured in India from scrap.

2. The wagon castings have been standardized and are common to all types of wagons but not those for Carriage Underframes. But we understand that the standardization of carriage underframes is under consideration.

3. We have no experience of steel making but do not see any inherent difficulty in the manufacture of Steel Castings in India. We understand, however, that certain kinds of sand have to be imported.

The manufacture of spring steel is handicapped by the fact that only basic pig is obtainable in India, the small amount of acid steel produced locally being made from imported pig iron by Ishapore, the Bombay, Baroda and Central India Railway at Ajmere, and the East Indian Railway at Jamalpur.

In the British Standard Specifications Report No. 24 of 1921 the following specifications allow the use of only Acid Steel:—

Nos. 6, 6b, 7, 7a;

and the following allow the use of basic Open Hearth Steel also:—

Nos. 6a, 6c.

Of these specifications—

Nos. 6, 6a, 6b and 6c refer to Laminated Springs and Steel; therefore Nos. 7 and 7a refer to Volute and Helical Springs.

It will thus be seen that the use of basic open hearth steel is allowed in the alternative specifications for Laminated Springs but not at all for Volute and Helical Springs.

We understand that the Railway Board do not at present accept spring steel made by the basic process, but that Messrs. Tata have approached the Railway Board on the subject.

4. Wagons: Approximately 7½ cwts. average.

Carriage Underframes: Approximately 1½ tons average.

5. We attach herewith the statement giving such information as we can supply.

Year.	SPRINGS.		SPRING STEEL.		SOLBBAR STIFF BRACKETS.		AXLE-BOXES.		OTHER CASTINGS.		BUFFER CASES.	
	Imported.	Local.	Imported.	Local.	Imported.	Local.	Imported.	Local.	Imported.	Local.	Imported.	Local.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1922-23	55	...	3	...	...	...	3	...	8	...	3	...
1923-24	78	...	4	...	...	...	14	10	30	53	9	...
1924-25	266	104	345	...	23	16	161	...	21	99	169	...
1925-26	242	25	646	...	59	2	422	...	139	...	334	...

6. We attach herewith the statement (Enclosures I to V) giving such information as we can supply.

7. (a) We did at one time investigate the question of installing a steel plant, but came to the conclusion that it was more economical to import the castings.

(b) We manufacture iron castings and the percentage of castings rejected is about 2 per cent. In practice the number of rejections naturally depends on the type of casting being made; we have merely given the average.

8. (a) Generally speaking Indian Castings are not so good as those from Great Britain or the Continent but we have had excellent castings from the Bombay, Baroda and Central India Steel Foundry at Ajmere who made those castings not by the Electric but by the Tropenas Process.

(b) The only Indian Spring Steel we have had experience of is that from the Ishapore Gun and Shell Factory. The Steel was satisfactory, but the rolling and deliveries were bad.

9. We enclose copies of correspondence (Enclosures VI to XIII) which passed between ourselves and Messrs. Hukumchand. The correspondence gives the history and fate of two orders placed in 1924, and indicates why they are not usually invited to quote. Messrs. Hukumchand's representative is frequently at our Works, and knows when an order for rolling stock is placed with us, but Messrs. Hukumchand do not even ask to be given the opportunity to quote. Their prices are also unfavourable; in the Spring of 1925 we obtained an emergency supply of over 2,000 solebar stiffening brackets from them; we were importing these brackets at Rs. 2-9-6 each landed, but Hukumchand's price was Rs. 3-12.

Enclosure I.

Steel Castings.

Year 1923.

Item. Axle-boxes.

Country of Origin—England. Condition—Rough castings.

Weight—each, 3 qrs.; per set, 3 cwts.

F.o.b. cost per cwt.—36 shillings.

	£	s.	d.
F.o.b. cost per each	1	7	0
Freight	0	1	9½
Insurance	0	0	1

TOTAL 1 8 10½ each = £5-15-6 per set of 4.

Item. Buffer Cases.

Country of Origin—England. Condition—Rough castings.

Weight—each, 2 qrs.; per set, 2 cwts. 3 qrs. 8 lbs.

F.o.b. cost per cwt.—28 shillings (Approx.).

	£	s.	d.
F.o.b. cost per each	0	19	6
Freight	0	1	8
Insurance	0	0	1

TOTAL 1 1 3 each.

NOTE.—Landing Charge Rs. 5-8 per ton.

London Office Commission 3 per cent.

Duty 10 per cent.

Enclosure II.

Steel Castings.

Year 1924.

Item. Axle-boxes.

Country of Origin—England. Condition—Axle-boxes, machined complete with Pressed Steel, Cover Plates, Cast Iron Slides with Finger Pull Dust Shields and Dust Shields, Cover Plates.

Weight—each, 3 qrs. 2 lbs.; per set, 3 cwts. 0 qr. 8 lbs.

F.o.b. cost per cwt.—49 shillings.

	<i>£ s. d.</i>
F.o.b. cost per set	7 11 0
Freight	0 10 0
Insurance	0 0 6
	<hr/>
TOTAL	8 1 6 per set.

Item. Axle-boxes.

Country of Origin—England. Condition—complete as above with bearings, special.

Weight—each, 3 qrs. 2 lbs.; per set, 6 cwts. 0 qr. 16 lbs. (Castings only).

F.o.b. cost per cwt.—Unable to say as bearings included.

	<i>£ s. d.</i>	
F.o.b. cost per set	25 12 0	per set of 8.
Freight	1 1 0	
Insurance	0 1 9	
	<hr/>	
TOTAL	26 14 9	

Item. Buffer Cases.

Country of Origin—England. Condition—Castings, machined.

Weight—each, 2 qrs. 12 lbs.; per set, 2 cwts. 1 qr. 20 lbs.

F.o.b. cost per cwt.—46 shillings (Approx.).

	<i>£ s. d.</i>
F.o.b. cost per each	1 8 0
Freight	0 1 4
Insurance	0 0 1
	<hr/>
TOTAL	1 9 5 each.

NOTE.—Landing Charge Rs. 5-8 per ton.

London Office Commission 3 per cent.

Duty 10 per cent.

Item. Buffer Plungers.

Country of Origin—England. Condition—Castings, machined.

Weight—each, 2 qrs. 9 lbs.; per set, 2 cwts. 1 qr. 8 lbs.

F.o.b. cost per cwt.—42 shillings (Approx.).

	<i>£ s. d.</i>
F.o.b. cost per each	1 4 6
Freight	0 1 3
Insurance	0 0 1
TOTAL	<u>1 5 10</u> each.

NOTE.—Landing Charge Rs. 5-8 per ton.

London Office Commission 3 per cent.

Duty 10 per cent.

Enclosure III.

Steel Castings.

Year 1925.

Item. Axle-boxes.

Country of Origin—England. Condition—Castings, Axle-boxes, machined complete with Axle-boxes, Pressed Steel Cover Plates, Cast Iron Slides with finger pulls, Dust Shields and Dust Shield Cover Plates but without bearings.

Weight—each, 3 qrs. 2 lbs.; per set, 3 cwts. 0 qr. 8 lbs. (Axle-box only).

F.o.b. cost per cwt.—49 shillings.

	<i>£ s. d.</i>
F.o.b. cost per set of 4	7 11 0
Freight	0 10 0
Insurance	0 0 6
TOTAL	8 1 6 per set of 4.

Item. Solebar Stiffening Brackets.

Country of Origin—England. Condition—Castings, undrilled.

Weight—each, 10½ lbs.; per set of 4, 1 qr. 14 lbs.

F.o.b. cost per cwt.—33 shillings (Approx.).

	<i>£ s. d.</i>
F.o.b. cost per set	0 12 6
Freight	0 0 11
Insurance	0 0 1
TOTAL	<u>0 13 6</u> per set of 4.

Item. Buffer Cases and Plungers.

Country of Origin—England. Condition—Castings, machined

Weight—each, 1 cwt. 0 qr. 7 lbs.; per set, 4 cwt. 1 qr.

F.o.b. cost per cwt.—31 shillings (Approx.).

	£	s.	d.
F.o.b. cost per each	1	13	3
Freight	0	2	7
Insurance	0	0	2
TOTAL	1	16	0

each, i.e. £7-4-0 per set of 4.

NOTE.—Landing Charge Rs. 5-8 per ton.

London Office Commission 3 per cent.

Duty 10 per cent.

Enclosure IV.

Steel Castings.

Year 1926.

Item. Axle-boxes.

Country of Origin—Belgium. Condition—Axle-boxes machined complete with Face Plates, Dust Shield Cover Plates, Cast Iron Slides with finger pulls, Dust Shields, but without bearings.

Weight—each, 3 qrs. 2 lbs.; per set, 3 cwt. 0 qr. 8 lbs. of 4 (Castings only).

F.o.b. cost per cwt.—33 shillings (Approx.).

	£	s.	d.
F.o.b. cost per set	5	1	0
Freight	0	11	0
Insurance	0	0	6
TOTAL	5	12	6

Item. Solebar Stiffening Brackets.

Country of Origin—Belgium. Condition—Castings, undrilled.

Weight—each, 10½ lbs.; per set, 1 qr. 14 lbs.

F.o.b. cost per cwt.—20 shillings (nearly).

	£	s.	d.
F.o.b. cost per each	0	1	7½
Freight	0	0	2
Insurance	0	0	0½
TOTAL	0	1	10

each or £0-7-4 per set of 4.

Item. Buffers.

Country of Origin—England. Condition—Complete with Steel Springs.

Weight—each, 2 cwt. 1 qr. 23½ lbs. (including Springs). 1 cwt. 2 qrs. 25 lbs. (without Springs).

Cost delivered our Yard—Rs. 58-12 per Buffer.

NOTE.—Obtained through a Calcutta Firm, f.o.b. price, therefore, not available.

Encicure V.*Spring Steel.*

Year 1923.

Sizes 4" x ½" and 4" x ⅜".

	Per ton.
	£ s. d.
F.o.b. cost	14 7 6
Freight	1 1 4½
Insurance	0 1 2½
	<hr/>
	15 10 1

Year 1924.

Size 4" x ½".

	Per ton.
	£ s. d.
F.o.b. cost	14 10 0
Freight	1 1 4½
Insurance	0 1 1½
	<hr/>
	15 12 6

Year 1925.

Sizes 4" x ½" and 4" x ⅜".

	Per ton.
	£ s. d.
F.o.b. cost	14 0 0
Freight	1 1 4½
Insurance	0 0 10½
	<hr/>
	15 2 3

Sizes 4" x ½" and 3" x ½" (January).

	Per ton.
	£ s. d.
F.o.b. cost	14 5 10
Freight	1 1 4½
Insurance	0 1 0½
	<hr/>
	15 8 3

Sizes 4" x 3" and 4" x 1/2" (November).

	Per ton.
	£ s. d.
F.o.b. cost	13 10 0
Freight	1 1 4 1/2
Insurance	0 0 10 1/2
	<hr/>
	14 12 3

Note.—Landing Charges Rs. 5-8 per ton.

London Office Commission 3 per cent.

Duty 10 per cent.

Year 1926.

Sizes 4" x 1/2" and 4" x 3".

	Per ton.
	£ s. d.
F.o.b. cost	10 10 0
Less 2 1/2 per cent.	0 5 3 (Conti- nental).
	<hr/>
	10 4 9
Freight	1 1 4 1/2
Insurance	0 0 7 1/2
	<hr/>
	11 6 9

Size 3" x 1/2".

	Per ton.
	£ s. d.
F.o.b. cost	10 11 2 (Conti- nental).
Freight	0 16 7 1/2
Insurance	0 0 8 1/2
	<hr/>
	11 8 6

Note.—Landing Charge Rs. 5-8 per ton.

London Office Commission 3 per cent.

Duty 10 per cent.

Enclosure VI.

(Copy.)

No. CW. 6066-H.

Dated 12th February 1924.

THE HUKUMCHAND ELECTRIC STEEL WORKS, LD.
30, Clive Street,
Calcutta.

DEAR SIRS,

Order No. 8870 of 1923-24.

53 B. G. Carriage Underframe Sets for E. B. R.

We have pleasure in placing with you our order for 53 sets of B. G. Carriage Underframes and Bogie Steel Castings at Rs. 27-4-8 (Rupees Twenty-seven, annas four and pies eight only) per cwt. delivered our Yard, Howrah. Each set consists of the following:—

1. 4 Top Bolster Spring Bearings, Sheet No. 91A.
2. 4 Bottom Bolster Spring Bearings, Sheet No. 92.
3. 8 Bolster Side Bearing Blocks, Sheet No. 93.
4. 4 Bottom Side Bearers, Sheet No. 128A.
5. 4 Top Side Bearers, Sheet No. 130A.
6. 4 Queenposts (Solebar), 2 R.H. and 2 L.H., Sheet No. 344.
7. 4 Queenposts (Longitude), 2 R.H. and 2 L.H., Sheet No. 345.
8. 16 Auxiliary Bearings Spring Boxes, Sheet No. 129.

With reference to Items 6, 7 and 8, the manufacture of these items should not be commenced until further instructions are received from us. We understand you can guarantee delivery of 16 complete sets of Castings in from 5 to 6 weeks from receipt of this order.

We shall be pleased if your representative will call to see the Manager of our C. and W. Department when our manufacturing programme can be discussed and arrangements made with you and confirmed regarding our definite monthly requirements.

We enclose herewith one ferro of each of the drawings above mentioned.

Yours faithfully,

(Sd.)

Managing Agents.

Accompts. 8 ferros.

Enclosure VII.

(Copy.)

THE PIONEER ELECTRIC STEEL COMPANY.

Calcutta, 15th February 1924.

MESSRS. BURN & Co., LD.,
Howrah.

DEAR SIRs,

*Order No. 8870 of 1923-24.**53 B. G. Underframe Sets—E. B. Ry.*

We have to acknowledge, with thanks, receipt of your valued order for steel castings as detailed in your letter of the 12th instant at Rs. 27-4-8 per cwt. delivered your yard, Howrah.

We note you do not require us to commence work on Items 6, 7 and 8 until we receive further instructions from you.

We undertake to supply 16 complete sets of castings in 5 to 6 weeks from date of receipt of this order and thereafter at the rate of 15 complete sets per month until completion.

Assuring you of our most careful attention to your requirements.

Yours faithfully,

For Hukumchand Electric Steel Works,
(Sd.) F. G. WILLIAMS,
Manager.

Enclosure VIII.

(Copy.)

No. CW. 7488-H.

Dated 10th April 1924.

THE HUKUMCHAND ELECTRIC STEEL WORKS, LD.,
30, Clive Street,
Calcutta.

DEAR SIRs,

*Order No. 8871 of 1923-24.**53 B. G. Carriage Underframe Sets for O. and R. Ry.*

We have pleasure in placing with you our order for 53 sets of B. G. Carriage Underframes and Bogie Steel Castings at Rs. 27-4-8 (Rupees Twenty-seven, annas four and pies eight only) per cwt. delivered our Yard, Howrah. Each set consists of the following:—

1. 4 Top Bolster Spring Bearings, Sheet No. 91A.
2. 4 Bottom Bolster Spring Bearings, Sheet No. 92.

3. 8 Bolster Side Bearing Blocks, Sheet No. 93.
4. 4 Bottom Side Bearers, Sheet No. 128A.
5. 4 Top Side Bearers, Sheet No. 130A.
6. 4 Queenposts (Solebar), 2 R.H. and 2 L.H., Sheet No. 344.
7. 4 Queenposts (Longitude), 2 R.H. and 2 L.H., Sheet No. 345.

Referring to Items 6 and 7, the manufacture of these fittings should not be commenced until further instructions are received from us.

The Sheet Numbers mentioned above are already with you having been sent with our order No. 8870 of 12th February 1924.

We have approached the Controller of Inspection, Calcutta Circle, and he has agreed to inspect these fittings at your Works prior to despatch. We shall be pleased, therefore, if you will arrange not to despatch any castings to our Works until they have been passed by the Inspection Department.

Yours faithfully,

(Sd.)

Managing Agents.

Enclosure IX.

(Copy.)

No. CW. 316-H.

Dated 15th May 1924.

THE HUKUMCHAND ELECTRIC STEEL WORKS, LD.,
30, Clive Street,
Calcutta.

DEAR SIRS,

O/8870 CW. 1923-24.

53 B. G. Underframes for the E. B. Ry.

We are arranging to return you 15 cast steel Bolsters which will not machine up to the dimensions circled in red on our sheet drawing No. 91A enclosed herewith.

Please note this is the first selection made from the castings that have been supplied up to date.

Yours faithfully,

(Sd.)

Managing Agents.

Enclosure 1.

Copy sent to D. O. and C. W. S. to arrange immediate despatch to the Hukumchand Electric Works.

Enclosure X.

(Copy.)

No. CW. 3699-H.

Dated 22nd October 1924.

THE HUKUMCHAND ELECTRIC STEEL WORKS, LD.,
30, Clive Street,
Calcutta.

DEAR SIRs,

Steel Castings for Carriage Underframes.

We shall be much obliged if you will arrange to expedite delivery of another 20 sets of Queenposts for the above Underframes as the work will be seriously held up for the want of this material.

We shall require 15 sets of large Queenposts right and left hand and also 12 sets of short Queenposts right hand only for the November output of Underframes.

Yours faithfully,

(Sd.)

Managing Agents.

Enclosure XI.

(Copy.)

No. S. P. 4172-H.

Dated 14th November 1924.

THE HUKUMCHAND ELECTRIC STEEL WORKS, LD.,
30, Clive Street,
Calcutta.

DEAR SIRs,

Orders Nos. 8870 and 8871.

Steel Castings for Carriage Underframes.

We have to address you regarding the exceedingly serious position created by your failure to deliver the steel castings required for the carriage underframes we are making for the E. B. and O. and R. Railways. You gave us an undertaking to deliver 16 complete sets of castings within 5 to 6 weeks from date of receipt of order and to continue deliveries at the rate of 15 underframe sets thereafter. Had you adhered to this guarantee Items 1, 2, 3, 4 and 5 of our orders would have been completed by the end of September and 65 sets of Items 6 and 7 would have been delivered by this date.

We have underframes in our shops which we cannot place on their wheels for want of Queenposts, others are entirely finished but cannot be despatched for want of side bearers and the whole output of underframes is now entirely dependent upon your deliveries.

As this cannot be tolerated indefinitely we have to advise you we have to-day cabled to England and have placed orders for 30 complete sets of castings there and we herewith cancel 30 complete sets of castings from you, that is, in place of the two orders totalling 106 sets; and we now ask you to supply 76 sets only. In the meanwhile we must insist upon better deliveries and we must advise you that should our monthly despatches be held up we shall recover the amount of our losses from your bills.

Yours faithfully,

(Sd.)

Managing Agents.

Enclosure XII.

(Copy.)

THE HUKUMCHAND ELECTRIC STEEL WORKS.

Calcutta, 20th November 1924.

Messrs. BURN & Co., LD.,
Howrah.

DEAR SIRs,

Your Orders Nos. 8870 and 8871. Steel Castings for Bogie Underframes.

We have to acknowledge receipt of your letter of the 14th instant and note with great regret that you propose to cancel 30 complete sets of the above castings. Your decision to do so involves us in heavy financial loss, as practically all the castings required to complete the order have been made and we are now working a double shift on them in order to complete the whole order by December 31st, 1924.

We attach a statement showing the numbers actually cast, the numbers delivered and the balance due on each item. From this you will see that with the exception of the Queenposts and Top Side Bearers, all the castings have been made. They have also passed through the annealing and cleaning operations and now only require the heads to be removed and some slight further fettling operation to complete them ready for delivery.

It is only a very short time ago that we received from you extra patterns for Queenposts and Top Side Bearers to enable us to speed up deliveries of these components. These extra patterns together with the double shift we are now working will enable us to complete these components also by December 31st, 1924. We ask for no consideration from you regarding any components which have not actually been made. We do, however, crave your indulgence in the matter of the large stock of castings made to your order and lying at our Works and rapidly approaching completion.

We are confident we can complete the whole order before any castings can be obtained from England, and this being the case, there appears to be nothing gained in the matter of deliveries by ordering now from Home. We, therefore, request you to be so good as to reconsider your decision in the matter and permit us to continue to deliver our castings as they are completed.

Thanking you and assuring you of our best services,

We are, Dear Sirs,

Yours faithfully,

For Hukumchand Electric Steel Works,

(Sd.)

Manager.

Enclosure XIII.

(Copy.)

No. S. P. 4305-H.

21st November 1924.

THE HUKUMCHAND ELECTRIC STEEL WORKS, LD.,
30, Clive Street,
Calcutta.

DEAR SIRS,

Our Orders 8870 and 8871.

We are in receipt of your letter, dated the 20th, regarding our decision to order 30 sets of steel castings from England and cancel 30 of the overdue sets ordered from you.

As you are aware you guaranteed to deliver 15 sets per month but you have only averaged 5 sets. For months past we have been seriously delayed by the non-fulfilment of your promises. Various members of our staff have seen you time after time about these castings, many promises have been made but not kept. We have assisted you in all ways possible, our staff have given you technical assistance, we have cut off the headers for you, we have sent our own carts to take deliveries and we have made patterns for you but in spite of all this our output of underframes has been and is still being held up solely for want of your supplies. Finally to safeguard ourselves and to make certain we would at least finish the last 30 sets without undue delays we decided to order elsewhere.

In regard to our action causing you heavy financial loss we would point out that your failure to deliver the goods has and is causing us severe financial loss. We would also remind you that these castings are standard articles and should we (as we hope to do) secure further orders for underframes we will take these off your hands provided the type has not been altered in the meanwhile. Should we progress so fast with our underframe orders that we require more sets of casting before the Home supplies arrive we will place orders with you for as many complete sets of casting as we require. We would point out that the best way to bring this condition about is for you to complete your 76 sets with as little delay as possible.

We very much regret we are unable to alter our decision which was only put into effect after it appeared absolutely necessary.

Yours faithfully,

(Sd.)

Managing Agents.

3. MESSRS. JESSOP AND COMPANY, LIMITED.

Letter, dated the 24th May 1926, giving replies to questionnaire regarding wagons and locomotives.

Referring to your circular letter No. 250, dated the 15th May 1926, we send you enclosed our reply (with 6 spare copies) to your questionnaire relating to steel castings and spring steel required for the manufacture of coaching underframes and wagons, and trust the information will be found useful.

Reply to Tariff Board's questionnaire relating to steel castings and steel Springs for coaching underframes and wagons.

- (1) List of principal steel castings required for underframes and wagons. As per your list (b) with the addition of cast steel sole bar stiffeners.
- (2) The castings have all been standardised by the I. R. C. A.
- (3) There is no inherent difficulty in the process of manufacture or in obtaining raw material to prevent the economic production in India of (a) the castings specified above and (b) spring steel.
- (4) Weight of material per vehicle.

	Cwts.
(I) Steel castings per underframe	38
Steel castings per wagon	4
(II) Spring steel per underframe	20
Spring steel per wagon	8

- (5) Steel castings and springs used by us during the year.

	1922-23	1923-24	1924-25	1925-26
	Cwts.	Cwts.	Cwts.	Cwts.
Steel castings local	Nil.	Nil.	2,248	Nil.
" " imported	1,074	900	510	1,900
Springs imported	1,440	2,400	1,700	3,952

- (6) The price of the local rough castings was Rs. 33 per cwt. The imported castings were axle boxes at an average cost of Rs. 24 per cwt. machined where necessary.

All prices are landed costs including duty.

The imported axle boxes 1922-23, 1923-24 were of British make, those imported since were continental.

The same remarks regarding source of origin apply to the laminated springs.

The cost of the continental laminated springs may be taken at Rs. 15 per cwt. landed in India.

- (7) We do not contemplate the manufacture of steel castings in India.

The average of bad castings in our Iron Foundry is 5 per cent.

- (8) Our experience of local steel castings is unfortunate inasmuch as we were probably comparing a first effort with the output from old established overseas steel foundries.

We have no experience of locally made spring steel. This commodity has not yet been produced locally to our knowledge in commercial quantities and we have not had an opportunity of testing the samples made by way of experiment.

- (9) Since placing our order with The Hukumchand Electric Steel Works for steel castings for Bogie underframes in 1924-25 we have not approached them formally regarding prices for bogie castings and axle boxes, but in a friendly way, current prices of Rs. 14 per cwt. for the former and Rs. 18 each for the latter have been reported to their Manager who realised that he cannot compete against such quotations and agreed that asking him to quote would serve no useful purpose while such a great disparity between imported and local prices existed.

Steel Castings and Spring Steel.

XVI.—Applications dealing with Steel Castings and Spring Steel.

1. THE HUKUMCHAND ELECTRIC STEEL WORKS.

Representation, dated the 19th April 1926.

With reference to the Commerce Department Resolution published in the press on the 2nd instant, requesting the Tariff Board to examine the claims for protection of industries making steel products, we desire to again address you regarding our claim.

The Tariff Board in their report on our original claim stated that through lack of sufficient reliable information on certain essential points they were unable to make any recommendation at that time. The principal points on which information was lacking were:—

- (1) the extent of the probable demand for steel castings in India;
- (2) whether an ample supply of raw material (steel scrap) is likely to be available in or near Calcutta at a reasonable price;
- (3) whether the industry will eventually be able to stand alone without assistance from Government.

With regard to item 1 we have considerably more information at our disposal now than we had in 1923, both as a result of our experience in securing orders from various railways and other public bodies and from enquiries made from them as to their probable demand.

In our evidence before the Tariff Board in 1923 we stated that in our opinion the annual demand for axle boxes alone for all the railways in India would be more than sufficient to keep our works fully employed. The Tariff Board were inclined to doubt this statement on the grounds that when once the use of steel axle boxes had become universal the annual demand would fall off considerably. We do not agree with this view. The report by the Railway Board on Indian Railways for 1923-24, Vol. II, gives statistics showing the Rolling Stock Equipments of all the Railways in India. From these official figures it is seen that the number of axle boxes actually in commission during the period under review was approximately 1,000,000. Taking the very conservative percentage of 5 per cent. for annual replacements it is clear that approximately 50,000 boxes are required annually. The above figures apply even on the assumption that only Cast Steel Boxes are used, for the life of a steel box is certainly less than the life of the wagon of which it is a component part and in the case of ordinary 4-wheeled wagon it is considerably less than 20 years. We have experienced considerable difficulty in proving this figure chiefly on account of the reluctance of many of the Railways to inform us officially of their requirements. The following figures and remarks, however, give support to the statement:—

In November 1925 orders were placed with wagon building firms in India for 3,200 wagons requiring 12,800 boxes	12,800
Also in January 1925 orders were placed abroad for 1,134 wagons requiring 4,536 boxes	4,536
During 1925 we received orders from various Railways in India for 7,500 boxes	7,500
TOTAL	<u>24,836</u>

In addition to the above figures many Railways continue to import boxes from abroad and there are also very large numbers of Cast Iron boxes being made in the workshops of the Railways themselves. The tendency now is to discontinue the use of Cast Iron Boxes altogether and substitute steel boxes. As evidence of this we may say that in 1924 the O. & R. Railway

placed an order with us for 20,000 steel boxes with which to replace Cast Iron. The East Indian Railway are following suit and in 1925 they placed an order with us for 5,000 boxes.

The following are the estimated requirements of those of the Railways which have informed us officially of their probable annual demands:—

	Average.
East Indian Railway	3,609
H. E. H. the Nizam's Railway	730
Eastern Bengal Railway	1,036
B., B. and C. I. Railway	3,000
North Western Railway	3,050
TOTAL	11,425

The above are the only official figures we have been able to obtain but it is reasonable to assume that the numbers required by the remaining Railways must be at least equal to the above seeing that they include the B. N. Railway, the G. I. P. Railway, the S. I. Railway, and the S. M. Railway.

We, therefore, have not less than 22,000 boxes required for replacements alone excluding the new rolling stock already mentioned.

Replacements	22,000
New Rolling Stock	17,336
TOTAL	39,336

or say 40,000

In addition to the axle boxes there are numerous other components demanded annually in very large numbers of which the following is a selection with the numbers actually ordered from us during 1925:—

Name of Railway.	Description Casting.	No Ordered.	Weight each.	Price.
1. G. I. P. Railway	Spring Links	520	1 Qr.	Rs. 38 cwt.
2. Do.	Horn Checks	1000	1 Qr. 6 lbs.	Do.
3. Do.	Do.	2000	25 lbs.	...
4. B. N. Railway .	Spring Hanger Brts	400	...	Rs. 10-6 each.
		400	...	Rs. 10-12 each.
5. E. B. Railway .	Head Stock Brts 8½"	500 .	1 cwt.	Rs. 38 cwt.
6. Do.	Do. 9½ or 10	500	20 Qr. 19 lbs.	..
7. Do.	Sockets, { inner	200	26 lbs.	Rs. 15-8 each.
		outer	500	1 Qr. 3 lbs.	Rs. 15-8 each.
8. E. I. Railway .	Axle Boxes	5000	2 Qr. 15 lbs.	Rs. 24-8 each.
9. N. W. Railway	Bracketts Truss Rod Hangers.	2000 pairs	17 lbs.	Rs. 7 per pair.

Additions to plant and machinery, signalling apparatus, permanent-way repairs, tools, dies and die steel, anvils for steam and drop hammers, etc., have also to be considered.

Bogie Underframes.

The weight of steel castings in a four-wheeled wagon may be taken at 7 cwts. only. In the case of Bogie Underframes it is very much greater. In 1924 we supplied underframe castings to two wagon building firms in Calcutta. The weight per set amounted to 26 cwts. excluding axle boxes. As the manufacture of underframes now seems likely to become established as a result of the grant of a bounty it may be assumed that a further large demand for castings will be created. Assuming the present capacity of the builder to be 200 underframes per annum, we should have demand for 5,200 cwts. of castings yearly, excluding axle boxes, of which 8 are required per underframes. In connection with underframe castings we should like to draw the attention of the Tariff Board to the statements furnished by Messrs. Jessop & Co., dated July 24th, 1925 (pages 302 to 309).

In these statements the weight of steel castings per underframe is given as 5 cwts. only. Actually it is 26 cwts. excluding axle boxes. A large number of components supplied by us as steel castings have been entered in Messrs. Jessop & Co.'s lists of materials under other designations.

Locomotive Repairs.

The number of Locomotives at present in commission on Indian Railways is approximately 10,000 (*see* Report by Railway Board on Indian Railways, 1924). We are slowly but surely increasing the quantity of locomotive castings turned out annually and those Railways which have placed trial orders with us are now beginning to place repeat orders with us. We anticipate that locomotive castings will form a very considerable proportion of our future output.

Locomotive Building in India.

We are informed by the Peninsular Locomotive Company, Tatanagar, that they anticipate being in a position to start building locomotive in the very near future. They have asked us to furnish them with details of all the Locomotive Castings we have manufactured in India for Indian Railways and to state what is our capacity for such castings with a view to arranging their future programme. Should they succeed in establishing this manufacture a further very considerable demand for steel castings will be created.

Miscellaneous Castings for General Engineering.

Our output of miscellaneous castings for general engineering purposes is increasing. There is a large market for this class of work in India. From 20 to 25 per cent. of our output is in this form.

Automatic Centre Buffer Couplers.

We understand that the Railway Board have definitely decided to substitute Automatic Centre Couplers for the existing double buffer and draw bar gear on all rolling stock on Indian Railways. If this is the case these will be ample work for more than one steel foundry in India for the next 5 years or more. Subsequently there will be a regular demand for replacements and repairs to these couplings. In fact it is difficult to see how the railways could carry on after the change is made without some local source of supply or castings. In this connection we may say that the Chief Controller of Stores, Indian Stores Department, has visited our Works on several occasions to ascertain our capacity for these castings and has promised us our full share of the work when the time comes for orders to be placed.

Steel Castings for Munition of War.

We are from time to time receiving orders from the Director of Ordnance Factories and manufacture for various parts of Gun Mountings and other Munitions. Our plant is particularly well adapted for the manufacture of a large variety of casting for munition purposes. In addition to castings we

can, if called upon, produce any of the high class specification steels required for the manufacture of gun, rifles, bayonets, etc. As an indication of the quantities of castings likely to be required by the Ordnance Department for defence purposes, we were recently asked by the Superintendent, Metal and Steel Factory, Ishapore, to furnish him with quotations for the manufacture of aerial bombs weighing respectively 5 cwts., 1 cwt. and 20 lbs. The probable numbers required were stated to be 5,000 or more per month.

In the event of war a vast quantity of special steel for the manufacture of High Explosives and Shrapnel Shells, Gun Tubes and Jackets, Rifle Barrels, etc., is certain to be required at very short notice. Our Works could be turned on to this class of works with little or no delay. In connection, therefore, with national defence our Works are already of considerable potential value and in the event of War might become an invaluable auxiliary to the existing Government Ordnance Factories. It should be stated here that the class of steel required for munition purposes is quite distinct from the ordinary structural and rail steel produced by firms like Tatas. It is of a special quality manufactured to very close Chemical and Physical Specifications and although required in comparatively small quantities these quantities are sufficiently large to fill our Works to its full capacity. We should also mention that in the case of the aerial bombs and similar casting these could not be manufactured in the existing Government Steel Works at Ishapore, as their entire melting capacity would be required to produce rolled bar for shell, etc. Moreover, their plant is unsuitable for the production of castings of this nature.

Steel castings of the wagon building industry.

The Tariff Board in their report on our original claim in 1923 stated that the success of the Steel Casting industry depended to a great extent on the success of the Wagon Building Industry in India. The grant of a bounty on all wagons and underframes built in India should go far to ensure the development and ultimate success of this industry. So long, however, as the wagon building firms decline to place orders in India for the castings they require the steel castings industry stands very little chance of benefiting by the prosperity of the wagon industry. The chief objection put forward by the wagon builders to the purchase of castings from us is that of price and it seems only fair that if protection is given to wagon builders it should also be given to the manufacturer of wagon components to enable the latter to reduce his prices sufficiently to render them competitive with the imported article. Sir Charles Innes in his speech in the Legislative Assembly on February 17, 1926 (see Legislative Assembly Debates, Vol. VII, No. 17) stated that as a result of the bounty, Government had been able to place orders in India for 3,200 wagons as well as a large number of underframes. With one trifling exception we have not been asked even to quote for the castings required to be incorporated in these wagons. For the wagons alone, 12,800 complete cast steel axle boxes had either to be imported or manufactured in this country. No orders and no enquiries for these axle boxes have come our way. So that while in the opinion of the Tariff Board the success of the castings industry is dependent upon the success of the wagon building industry, and in spite of the fact that, according to Sir Charles Innes, the wagon building firms are full to their maximum capacity, no benefit whatever has been derived by us.

We have shown that at least forty thousand axle boxes are required annually in India and this item alone provides for an output of 1,250 tons of castings per year. During 1925 we supplied to railways approximately 275 tons of miscellaneous castings for rolling stock excluding axle boxes and 260 tons approximately of miscellaneous castings to general engineering firms. We have every reason to believe that the last two items will continue to steadily increase. In fact, the Railway Board have informed us that there appears to be no doubt that much larger orders will be placed with us in future.

It is the policy of the Government of India to develop and increase railway facilities to the utmost extent by extending lines and increasing rolling stock. These extensions must create a still larger demand for steel castings.

From the foregoing figures we think it may be assumed that, there is a certain market for not less than 2,000 tons of steel castings per annum even if we leave out all those items about which there is any element of uncertainty such as Locomotive Castings, Munitions, Automatic Centre Couplers, etc. We trust, therefore, that the Tariff Board will now agree that there is already a sufficient market for our product and that market is likely to increase rather than diminish.

We have stated that the only objection the wagon builders can raise is that of price. They can have no objection on the score of quality as no castings leave our Works unless they are inspected and passed by the Controller of Inspection, Indian Stores Department.

The quantity of raw material likely to be available in or near Calcutta.

Item 2.—In connection with the question of future supplies of essential raw material (chiefly steel scrap) we recently circularised the Controllers of Stores of all the first class railways asking them to inform us what were their annual sales of scrap. The figures vary within such wide limits that we can hardly believe they are in every case correct. The N. W. Railway informed us that during 1924-25 they sold 10,000 tons of scrap by auction whereas the E. B. Railway informed us that they only sold 180 tons during the same period. Large quantities of scrap have, however, been periodically put up for auction by all the railways. In Calcutta we have been offered suitable scrap up to almost any quantity at steadily decreasing prices. Very large quantities of scraps also continue to be exported to Japan and other countries, so much so that we have had to write down the value of our own scrap to Rs. 20 per ton. The only scrap we have bought since 1923 is in the form of borings and turnings which are of no value to the ordinary dealer and which we get delivered in our Works at about Rs. 10 per ton. We have running contracts with several railways for the purchase of all their turnings and borings and this, together with the scrap in the form of heads and risers from our own castings keeps us going. Our policy for the future will be to buy only turnings and borings as this is the best form of scrap for our melting process. In the matter of price of scrap we are in a much better position than the home manufacturer who is at present paying approximately Rs. 30 per ton for turnings against Rs. 10 paid by us. Moreover, these turnings, having little or no value for any other purpose, the Railways and Engineering firms are ready to accept almost any price rather than have it on their hands. The scrap position causes us no anxiety at present, nor do we anticipate any appreciable rise in price in future for such scrap as we use. With regard to our other raw materials we obtain practically all we require locally. Graphite Electrodes, Plumbago Stoppers, Magnesite Bricks, Ladle Stoppers and Ferro Silicon are the only materials we import.

Whether the industry will eventually be able to stand alone without assistance from Government.

Item No. 3.—The results of the past three years' working have satisfied us that the steel casting industry will eventually be able to carry on without any assistance from Government. It is clear that provided sufficient orders can be secured to keep our Works more or less fully employed our cost of production will come down to an extent which will enable us to sell our products at prices competitive with imported castings. That real progress has been made toward this end is proved by this steady increase in output since we first started manufacturing. The following figures illustrate this:—

- In 1922 we delivered 661 cwts. of castings.
- In 1923 we delivered 5,601 cwts. of castings.
- In 1924 we delivered 10,183 cwts. of castings.
- In 1925 we delivered 15,134 cwts. of castings.

An increase from year to year over a period of four years of 250 tons per year proves that the industry is establishing itself and that the users of steel

castings are gaining confidence in us. The following is an analysis of our production cost for the year ending 31st March 1925:—

Expenditure.

	Rs.	A. P.
Stores	1,39,156	7 0
Electricity	67,576	7 4
Labour	1,27,937	11 3
Supervising establishment	45,639	13 3
Other overhead charges	34,614	12 0
TOTAL	4,14,925	2 10

Nett sales cwts. 13,798.

Cost per cwt. Rs. 30-3-0.

Interest and depreciation for the year at 6 per cent. amounted to Rs. 91,331 or Rs. 6-14-0 per cwt., bringing the total cost up to Rs. 37-1-0 per cwt.; the total sales were valued at Rs. 4,84,018 only or Rs. 35-1-0 per cwt.

There was thus a loss of Rs. 2 per cwt. In the above calculation no debit has been taken for head office rent or Managing Agents' salaries or commission, nor has any allowance been made for repairs except those actually incurred. We anticipate that if the output of the works can be worked up to 200 tons per month or 2,400 tons per year, our charges for interest and depreciation would be reduced by Rs. 4-10 (Rupees four and annas ten) per cwt. and the cost of supervision and overhead charges by Rs. 2 per cwt. Other savings are also possible with the large output such as reduced electric power consumption, fewer repairs to furnaces, lower fuel consumption in coal fired furnaces and considerable saving in time of working per heat in the electric furnace. These would probably account for a further saving of Re. 1 per cwt. We may, therefore, expect a total reduction in cost with a full output of Rs. 7-10-0 per cwt., thus making our total cost Rs. 29-7-0 per cwt. We consider this price would be competitive with imported British castings.

We consider that prices in Great Britain at the present time have reached rock bottom and the tendency in future will be upward rather than downward.

The following is a list of prices supplied to us by some of the leading British Founders in July 1925 for typical Railway Castings such as form the bulk of our output:—

Name of firms.	Price per cwt.	F. O. B. or C. I. F.	Exchange 1s. 6d.
	<i>s. d.</i>		
Messrs. Had fields	35 0	F. O. R. Port	Rs. 28 0
„ Lake and Elliott	40 0	„ „	Rs. 32 0
„ Edgar Ellen & Co.	29 6	F. O. B.	Rs. 23 12
	45 0	„	Rs. 41 12
	47 6		
	48 0		
„ Cammel Laird & Co.	36 6		
	65 0		
	57 6	Average 53 per cwt.	
	65 0		
„ Robert Hyde and Sons Limited (30 per cwt. ex their works for Axle Boxes only. Rs. 23/8 cwt. landed Calcutta).			

Spring Steel and other Special Steels.

The original Steel Works Scheme decided upon by the proprietors provided for a complete rolling mill equipment in addition to the plant for the manufacture of steel castings. Before, however, definitely deciding to purchase their rolling mill plant the firm decided to carry out exhaustive experiments to prove that steel suitable for rolling into spring steel bars, etc., could be manufactured in India. They also wished to satisfy themselves that they could produce steel which would meet all the requirements of the most rigid British Standard Specifications. All the experimental work in this connection has now been completed and the results leave no doubt as to our ability to produce spring steel equal in quality and appearance to any in the world. Ingots of spring steel of various sizes were made in our works and arrangements were made with the Superintendent, Metal and Steel Factory, Ishapore, to have them rolled into various sections of spring steel for test. The results of the tests were so entirely satisfactory that the proprietors decided to complete the purchase of a complete rolling mill outfit. This has been done and the mill is being erected and will be started in the near future. The results of all experiments and tests carried out in connection with spring steel manufacture are at the disposal of Tariff Board should they desire to examine them.

Demand for spring steel.

With regard to the demand for spring steel this is assured beyond all doubt. In 1925 during the period April 1st to December 31st the imports of spring steel into India amounted to 4,334 tons, equivalent to approximately 6,000 tons per annum. The value of this steel was Rs. 7,48,148 only. It was sold at prices ranging from Rs. 9 to Rs. 12-8 per cwt.

Production Cost.—The cost of production has been carefully gone into and the proprietors are satisfied that they will eventually be able to compete successfully in the open market for this class of steel. Our total production cost under present conditions of working is approximately Rs. 11 per cwt.

If the manufacture of spring steel can be established and sufficient orders secured to enable us to work our melting furnaces to full capacity it is anticipated that our cost of production would fall eventually to such a figure as would enable us to sell at competitive prices.

It is realised that several years must elapse before we can hope to receive regular orders sufficient to enable us to work our furnaces and mills to full capacity. Each individual railway will require to carry out prolonged and exhaustive tests of spring steel made in India and when they are satisfied as to its quality they will not be disposed to place large orders with us unless our prices are attractive.

We have stated that our present production cost is Rs. 11 per cwt., but we must be in a position to sell at approximately Rs. 9 per cwt. to be certain of securing orders and this price must include our own profit. To enable us to do this and to establish the manufacture we request that the Tariff Board will recommend that the same advantages as granted to Messrs. The Tata Iron and Steel Company, in the matter of import duty and bounty shall be given to us.

The manufacture of spring steel is strictly analogous to Tata's manufacture. The processes involved are identical and the difficulties are if anything greater. We consider, therefore, that our claim to receive the same privileges as Tatas in respect of this manufacture is both reasonable and just.

Establishment of spring steel would reduce cost of casting.

The establishment of spring steel manufacture in our works would benefit us in two ways. In our remarks on steel castings we have shown that substantial reductions in our production costs are only possible if we can work our melting furnaces in full capacity. We have shown that the demand for spring steel exceeded 4,000 tons during 9 months of 1925 and if only one-half of this demand were met by us the quantity of liquid steel required for this,

together with the liquid steel required for castings, would absorb all our present melting capacity and probably necessitate the installation of extra furnaces. This the proprietors will not hesitate to do if necessary. In addition, therefore, to establishing a profitable and useful industry in the manufacture of spring steel, we should at the same time considerably reduce the production cost of our steel castings by producing cheaper liquid steel, even if orders for castings should fall far below our melting capacity.

In 1923 we informed the Tariff Board that the full capacity of our Works was 250 tons of castings per month. This figure was based on our estimated melting capacity. We were at that time melting heats of 30 to 35 cwts. only. These have since been increased to 40 cwts. heats and the melting time per heat has been considerably shortened. We now know that each of our furnaces is capable of yielding 6 heats per day of 2 tons each. We can, therefore, produce 24 tons of liquid steel daily and allowing 25 working days per month for 10 months in the year, we get 6,000 tons of liquid steel per year. After allowing 33½ per cent. for heads and risers, wasters and other losses we can produce 4,500 tons of castings per annum. This should be more than sufficient to meet the total annual demand for India.

Should the manufacture of spring steel be established as anticipated we have other melting furnaces in reserve to provide the necessary liquid steel. We have recently acquired two 3½ ton and one-half ton capacity Heroult furnaces and these are being held in reserve against future requirements.

Capacity of rolling mills.

The 20" bar mill acquired by the firm has a capacity considerably greater than the total demand for spring steel for the whole of India. The output of the mill would not, however, be confined to spring steel alone, cast steel bars for machine tools, miners crowbars, drills, chisels, etc., are imported in large quantities. During 1925 approximately 2,000 tons of such steel were imported. The firm intend to roll all the above classes of steel in their mills.

On the foregoing grounds we, therefore, appeal to the Tariff Board to recommend the following to the Government of India:—

- (a) *Steel castings.*—The grant of a bounty of Rs. 10 per cwt. on our yearly output which would be periodically reduced as our output increases and production costs decrease until it is extinguished altogether. This would, in our opinion, occur in about 5 years, by which time we confidently expect that our works would be in a position to compete against all competition without Government aid beyond that afforded by the usual tariff.
- (b) *Spring steel and special cast steel in the form of rolled bars excluding high speed steel and alloy steels.*—An increased import duty and the grant of a bounty equivalent in all respects to that granted to Messrs. The Tata Iron and Steel Company, Limited, for structural steel, etc.

We trust that this application will receive favourable consideration at the hands of the Tariff Board.

Should any further information be required, we shall be happy to furnish it.

Letter, dated 4th May 1926, from the Hukumchand Electric Steel Works, Calcutta.

As requested by the President, we have pleasure in submitting herewith a detailed statement of our production costs of steel castings and spring steel for the year ended March 31st, 1925.

(1) *Steel castings.*

Our works cost excluding overhead charges, Head Office charges, Depreciation and Interest is, as shown on the detailed cost sheet (Sheet No. 1).*

Rs. 26-5-7 per cwt.

Owing to insufficient data having been recorded in the past, we have been unable to compare this with any other period except the half-year ended September 1925, which is also submitted herewith (Sheet No. 2).*

The overhead charges, which include the Manager's salary, the salaries of clerical staff, rent, rates, taxes, advertising and other general expenses amount to

Rs. 3-13-3 per cwt.

No charge has been made for rent of Calcutta Office or for the time spent by the Managing Proprietors of the concern.

We have shown depreciation at 6½ per cent. on the capital expenditure on the Ballygunge Works which is taken from the audited balance sheet as at 31st March 1925, as follows:—

	Rs.	A.	P.
Buildings	2,03,947	3	11
Machinery and plant	2,17,652	4	3
Electric furnace	3,40,079	8	2
Electric installation	1,15,056	4	10
TOTAL	8,76,735	5	4

6½ per cent. on above Rs. 54,795.

or a further Rs. 3-15-9 per cwt.

Our actual finishing cost is therefore:—

	Rs.	A.	P.
Works cost	26	5	7
Overhead	3	13	3
Depreciation	3	15	9
TOTAL	34	2	7 per cwt.

Our corresponding figure for the half-year ending September 1925, is:—

	Rs.	A.	P.
Works cost	24	7	0
Overhead	4	9	6
Depreciation	4	2	3
TOTAL	33	4	9 per cwt.

For purposes of comparison between our own costs and the cost of these imported castings which compete with our regular lines and which are produced

* Not printed.

abroad on a mass production basis, we have taken the price of the imported article at—

Rs. 24-3-8.

This is the price on sterling basis at which we executed a large order for miscellaneous castings for Bogie Underframes for Messrs. Burn and Company during 1924-25. We accepted the order at the lowest imported price for steel castings without regard to our own costs and we attach a letter from Messrs. Burn and Company, showing how the figure was arrived at. We have altered the rate of exchange to 1s. 6d. as that is approximately the rate of ruling to-day.

	Rs.	A.	P.
Our cost is	34	2	7
The imported price is	24	3	8
	<hr/>		
Difference	9	14	11

or say, Rs. 10 per cwt.

We cannot ask for an import duty on steel castings as it is impossible to gather statistics as to past imports, but referring to our paragraph above it is seen that there is a loss of Rs. 10 per cwt. and we have asked for that figure as a bounty on steel castings.

There still remains to be considered the question of manufacturers' profit.

	Rs.	A.	P.
On March 31st we had invested in the business	14,74,904	0	0
Less accumulated loss	2,49,073	0	0
	<hr/>		
	12,23,831	0	0

We consider that on the above amount a return of 12 per cent. can be justified which amounts to Rs. 1,47,100 or, say, Rs. 10 per cwt.

In our letter, dated April 19th, 1926, we have shewn that increased output would have a great effect upon our costs. It may be taken as an axiom that a Steel Works can only be economically worked provided its Melting Furnaces, etc., are worked continuously and to full capacity. If we can do this, we consider that a saving of Rs. 5-0-0 will be saved on our required profit and Rs. 4-14-8 on our overhead charges and depreciation. With this view we have commenced to manufacture Spring Steel. Our present costs for this manufacture are:—

	Rs.	A.	P.
Liquid Steel	5	13	0 per cwt.
Less 15 per cent. discard and rolling loss	0	14	0
Ingot Moulds	0	2	0
Handling Charges and Freight to Ishapore	0	3	0
Ishapore rolling charges	3	2	0
Depreciation	1	0	0
	<hr/>		
TOTAL	11	2	0

the lowest imported price of which we have information is Rs. 9 per cwt. c.i.f. Calcutta—a difference of Rs. 2 per cwt. To enable us to meet this competition an increased import duty up to 33½ per cent. would be necessary to meet our cost of Rs. 11 per cwt. and a small margin of profit.

The imports of Spring Steel into India during 9 months ended December 31st, 1925, amounted to tons 4,334 which was valued at Rs. 7,48,148, with duty and landing charges this would amount to Rs. 10,00,000 or about Rs. 12 per cwt.

The effect of an import duty on the Government of India revenue would be—

	Rs.
23½ per cent. on Rs. 7,48,148	2,32,757 in 9 months.
The cost of a bounty of Rs. 10 per cwt. on 20,000 cwts. of Steel Castings would be	2,00,000
Surplus	<u>32,757</u>

We trust the foregoing is quite clear and will supply the information required

(Copy.)

BURN AND COMPANY, LIMITED.

No. CW 6185/H.

HOWRAH, 29TH FEBRUARY 1924.

THE HUKUMCHAND ELECTRIC STEEL WORKS,
30, Clive Street, Calcutta.

DEAR SIRS,

Order No. 8870 of 23/24.

53 B. G. Carriage Underframe sets.

We are in receipt of your letter, dated the 15th instant and note that you accept our rate of Rs. 27-4-8 per cwt. for the steel castings we have ordered from you. The Railway Company have agreed to allow any increase that may take place due to enhanced Customs Duty.

The rate you have accepted is obtained in the following manner:—

£1-10-0	per cwt. f.o.b.
2-2	„ freight.
5-4	„ commission.
1-5	„ charges.

TOTAL . . . £1-12-8-2

	Rs. A. P.
Exchange at 1s. 4d.	24 8 11
Duty	2 7 4
Landing	0 4 5
TOTAL	<u>27 4 8</u>

It will be seen from the above that sum of Rs. 2-7-4 per cwt. is allowed for Customs Duty at the existing rate of 10 per cent. and this amount only is variable. In the case of enhanced Customs Duty being your bills should show a special item as follows:—

“ Increase in cost owing to alteration of Customs Duty from the existing rate of 10 per cent. in force on January 2nd, 1924.

Increase in Customs Duty per cent. = Rs. ”

Yours faithfully,
(Sd.) BURN & CO.,
Managing Agents.

2. ANGUS ENGINEERING WORKS.

Representation, dated the 11th June 1926.

Owing to our continued inability to meet severe competition from the United Kingdom, in the manufacture of fittings for railway wagons, we have been led to an investigation of the subject of tariff rates on the raw material and the finished article.

2. Early last year we secured a contract for the supply of fittings at prices which resulted in a heavy loss to us. We were more fortunate in getting better prices at the beginning of this year, but we again find in negotiating for new business that we have been undercut by United Kingdom suppliers.

3. The enclosed schedule shows the results of our investigations.

Referring to the schedule, we have shown under "tariff amount Raw material" the actual duty paid by us on the raw material. The column showing c.i.f. selling amount of the finished article necessarily contains estimated representative figures, but we have been careful not to under-estimate these figures. As a matter of fact the figures given represent our selling price in India, for our last completed contract, and we are forced to this level by direct competition from United Kingdom and it is, we think, a fair contention that in labelling these prices c.i.f., we have certainly erred on the side of over-estimating them.

4. In comparing the tariff amounts we pay, with the estimated maximum tariff amounts paid on the imported finished article, it will readily be apparent that the protection now given to the steel industry operates against the interests of Indian manufacturers of wagon fittings, a position which calls for redress, apart from all considerations of protection.

5. An examination of the totals of the columns "tariff amount raw material" and c.i.f. selling amount, indicates that the former amounts to 13.6 per cent. of the latter. The inference is that to place the Indian manufacturer of these specific items on a merely equal footing with foreign competitors requires a duty of 13.6 per cent. on the imported finished article.

6 On this basis we strongly support the plea of the manufacturers of wagons for an increase of protection on wagons and underframes.

7. As to the method of conferring this protection, we unhesitatingly suggest that a revised tariff be substituted for the present bounty. We desire to point out that under the bounty system we, as manufacturers of component parts for railway wagons, derive no benefit whatever, and therefore plead for an increased tariff to include not only the complete wagons and underframes but also all fittings entering into their manufacture.

Enclosure.

A-2 Type wagon fittings. Quantities are for 100 wagons.

Drawing No.	Mark.	Name.	Number.	Material.	Weight of material each.	Weight of material required.	Tariff rate.	Tariff amount of raw material.	C. I. F. selling rate.	C. I. F. selling amount	Tariff amount 10 per cent. of selling amount. Finished article
S2-1	A	Brackots for securing chainless cottar	800	M. S.	lbs. 4½	Cwt. Qr. lbs. 32 0 16	Rs. 40 Ton.	Rs. A. P. 64 4 6	per 100 40	Rs. 320	Rs. A. P. 32 0 0
"	A	Chainless cottars for securing doors	400	"	5½	18 8 0	"	37 8 6	76	304	31 6 4
"	H	Swing door bolts	200	"	10	17 3 12	"	35 11 6	120	340	24 0 0
S3-1	M	Door Hinge Pin	1400	"	1.63	22 8 14	"	45 12 0	28	392	39 3 2
S9-1	C	Axle guard bridles	400	"	7.12	25 1 20	"	50 13 9	120	480	48 0 0
S10-1	C	Washers for springs	400	"	9	32 0 16	"	64 4 6	100	400	40 0 0
S18-1	D	Vertical lever including 3 bushes	400	"	14	50 0 0	"	100 0 0	220	880	88 0 0
"	G	Vertical lever hanger	200	"	7	12 2 0	"	25 0 0	100	200	20 0 0
"	J	Brake Block hanger bracket (R. & L.)	400	"	11	39 1 4	"	78 9 3	140	560	56 9 0
"	O	Brake beam safety hanger	400	"	7	25 0 0	"	50 0 0	100	400	40 0 0
S19-1	L	Train pipe clips	400	"	2.37	8 1 24	"	16 14 9	32	128	12 12 9
"	O	Brake block hanger bolts	400	"	4.14	14 8 4	"	29 9 3	36	144	14 6 4
"	P	Nuts for above									
"	P	Split pins for above									
"	P	Vertical brake lever hanger bolts	100	"	3.7	3 1 6	"	6 9 9	32	32	3 3 2
"	P	Split pins for above									
"	P	Nuts for above									
"	Q	Washers for above	200	"	2.59	4 2 14	"	9 4 0	30	60	6 0 0
"	Q	Vertical brake lever hanger bolts									
"	Q	Nuts for above									
"	S	Vibrator, hanger, 6 nuts and ferrule	100	"	8.66	7 2 26	"	15 7 6	129	120	12 0 0
"	T	Cottars for above (adjusting pin)	200	"	1.15	2 2 20	"	5 5 9	16	32	3 3 2
"	U	Vertical lever bracket pin	100	"	4.75	4 0 27	"	8 7 9	32	32	3 3 2
"	U	Vertical lever washer									
"	U	Vertical lever split pin									
										4,724	472 6 1

XVII.—Questionnaires issued by the Tariff Board to the Railway Board and the Railways.

III.—STEEL CASTINGS FOR LOCOMOTIVES, RAILWAY CARRIAGES AND WAGONS.

1. Please give a list of the principal steel castings required for locomotives, carriages and wagons respectively. Does the following list of castings which the Hukumchand Electric Steel Works Company claim to be in a position to be able to manufacture out of scrap steel include all these classes?

- (a) *Locomotive*.—Axle Boxes, Buffers, Bogie Frame Stays, Motion Plates, Distance pieces, Piston Valve Heads, Wheel centres, Horn blocks, etc.
- (b) *Carriage and Wagon*.—Axle Boxes, Buffers, Bogie Centre Brackets, Queen Posts, Top Bolster Spring Bearings, Bottom Side Bearers, Sleeve Washers, Spring Sleeves, Spring Caps, Top and Bottom Side Bearers.

2. Have any of these classes of castings been standardized so as to permit of their use in more than one type of locomotive, carriage or wagon?

3. In your opinion is there any inherent difficulty involved in the process of manufacture or in obtaining raw material which would prevent the economic production in India of these classes of castings?

4. Kindly state the total weight of the principal classes of steel castings used by your railway each year from 1921-22 onwards under the following heads:—

- (a) Imported as such.
- (b) Manufactured in India elsewhere than in your workshops.
- (c) Manufactured in your workshops.

5. Please state the price per cwt. paid for each of the principal classes of steel castings falling under headings (a) and (b) in question 4 for each year from 1921-22 onwards.

N.B.—1. For castings imported from the Continent, please distinguish the country of origin.

2. For both British and Continental castings please state where possible the sterling f.o.b. prices and the charges for freight, landing, etc., separately. If this is not possible, please state the c.i.f. price in sterling.

6. What arrangements are made for testing castings imported from the Continent—

- (a) in the country of origin,
- (b) in India?

7. In the case of castings manufactured in your own workshops, please state the raw materials from which they were manufactured and give the average works cost per cwt. of finished production under the following headings:—

	Quantity.	Value.
(1) Materials, <i>e.g.</i> , scrap, refractories, fluxes, stores, etc.		
(2) Cost above materials, <i>e.g.</i> —		
Power		
Fuel		
Repairs		
General Works Supervision		
Miscellaneous		

8. What is the percentage of rejected castings in your own workshops?

9. If you manufacture axle boxes in your workshops, please give separately for these the particulars specified in question 7.

10. If you have any experience of steel castings manufactured in India (elsewhere than in your own workshops), please state the names of the makers and give your views in regard to their quality and workmanship compared with those of the imported article.

11. Kindly state the approximate weights and prices, if ascertainable, of steel castings forming parts of locomotives, carriages and wagons either imported and re-erected or built in India, by your railway for each year from 1921-22 onwards.

12. (a) Kindly furnish an estimate of the annual requirements of your railway during the next five years of steel castings:—

- (1) for repairs and renewals of locomotives, wagons and carriages;
- (2) as parts of locomotives, wagons and carriages imported and re-erected or built in India by your railway.

(b) To what extent will it be possible to meet these requirements from your own workshops?

13. Please state the quantity of steel castings used by you for general engineering purposes for each year from 1921-22 onwards. To what extent have your requirements of these been met from your own workshops?

14. Please state the prices per cwt. at which your railway has purchased steel castings for general engineering purposes in each year from 1921-22 onwards.

N.B.—For castings purchased from the United Kingdom or the Continent, please give the particulars specified in question 5.

15. Please give an approximate estimate of your requirements of steel castings for general engineering purposes for the next five years.

16. Has your Railway as yet adopted any definite scheme for the replacement of cast iron with steel axle boxes? If so, how long is the process of replacement likely to take and what will be your annual requirements of steel axle boxes under this scheme?

17. How does the durability of the steel axle box compare with that made of cast iron?

18. Please state what is the present position as regards the adoption of Automatic Centre Buffer Couplers. On the assumption that your railway decide on this course, has any definite scheme been framed, and, if so, what will be your total requirements and your annual requirements for each of the next 5 years?

19. Please state whether, in your opinion, all the necessary castings for Automatic Centre Buffer Couplers can be made out of materials available in India. If you do not consider this possible, please give your reasons.

20. What has been the average annual amount of steel scrap which your railway has placed on the market each year since 1921-22, and what has been the average price per ton realized f.o.r. works. How much of this scrap consisted of borings, turnings, shavings, etc., and what was the average selling price per ton f.o.r. works?

21. Please state the location of your principal workshops and the railway freight per cwt. for the carriage of castings from Calcutta to the workshop. For imported castings please state also the railway freight from the port of importation to the workshop.

22. In the event of the industry making out a case for the grant of protection, have you any views as to the form which this protection should take?

XVIII—Replies to questionnaires regarding Steel Castings and Spring Steel.

1. RAILWAY BOARD.

Letter, dated the 8th June 1926, giving replies to questionnaire regarding Steel Castings.

With reference to your letter No. 226, dated the 10th May 1926, I am directed to reply as follows to questions 1 to 3, 18, 19 and 22.

1. Lists A, B and C of the principal steel castings required for locomotives, carriage and wagon underframes respectively are attached. It will be observed that practically all the castings required are included in the list of castings which the Hukumchand Electric Steel Works Company claim to be in a position to manufacture.

2. Steel castings for locomotives, carriages and wagons have not yet been standardised in the strict sense of the term, but certain castings required for locomotives are interchangeable between two or more British Engineering Standards Association types.

Detailed designs for new types of locomotives, carriage underframes and wagons are under preparation and detail parts will be standardised as far as practicable.

3. It is understood that the Hukumchand Electric Steel Works uses only steel scrap in its furnaces, and the Railway Board agrees generally with the remarks of the Tariff Board in paragraph 25 of its First Report on Steel castings on the question whether there are sufficient supplies of steel scrap in India. It is understood that the tendency is for the price of steel scrap to rise but the Tariff Board will be able to determine whether this tendency has manifested itself in the period that has elapsed since its First Report was written. Surplus steel scrap in India, it is believed, is at present largely exported to Italy.

The Railway Board does not understand exactly what is meant by "inherent difficulty" in manufacture. Expert supervision is, of course, necessary, and it is believed that satisfactory quality can be ensured only if there is continuous chemical supervision of manufacture. If this is so, the necessity for maintaining a whole-time chemist must constitute a considerable addition to the overhead charges of the firm, especially so long as those overhead charges have to be spread over a comparatively limited output. The Tariff Board, however, will no doubt be able to compare the price which the Hukumchand Electric Steel Works Limited has to charge in order to secure a fair profit with the actual prices paid by the railways for the steel castings which they import. The only other remarks which the Railway Board has to make is that articles such as steel axle boxes are very difficult castings. Certain English firms specialise in them and have attained a very high standard of efficiency. It will no doubt be a long time before the Hukumchand Electric Steel Works can expect to reach the same standard.

18. The whole question is still under investigation, and in view of the many difficult problems that must be fully considered before a final decision is arrived at, it is not possible at present to foresee or estimate the requirement of railways for the next five years.

19. For the reasons expressed in the paragraph *ante*, no opinions can at present be formulated.

22. The Railway Board would prefer not to express an opinion beyond saying that they are averse to any form of protection which, by raising the charges to railways, would re-act adversely on the cost of transportation.

Enclosure I.

LIST A.

Principal Steel Castings required for locomotives.

1. Hind drag box.
2. Front drag box (tender).
3. Frame stretchers.
4. Platform supports.
5. Piston body.
6. Wheel centres.
7. Axle boxes.
8. Horn blocks.
9. Axlebox guides.
10. Truck frame cross stretchers.
11. Bogie centre.
12. Bogie centre carrier.
13. Motion plates.

Enclosure II.

LIST B.

CARRIAGES.

Underframe.

1. Queenposts.
2. Top and bottom Bolster Spring bearings.
3. Bolster end spring cap.
4. Bolster Hanger guide brackets.
5. Bolster side wearing block.
6. Top and bottom side bearer.
7. Wheel centres.
8. Axle boxes.

Enclosure III.

LIST C.

Wagons.

1. Bearing Spring brackets.
2. Bearing Spring Hangers.
3. Top centre castings and side bearer brackets.
4. Wheel centres.
5. Axle boxes.

2. EASTERN BENGAL RAILWAY.

Letter, dated the 21st June 1926, giving replies to questionnaire regarding steel castings.

With reference to your letter No. 226, dated 10th May 1926, I enclose herewith a statement containing the information required by the Tariff Board concerning steel castings for locomotives, railway carriages and wagons.

III.—Steel castings for locomotives, railway carriages and wagons.

1. The list of articles under (a) and (b) comprises all the principal steel castings required for locomotives, carriage and wagons except carriage and wagon buffer sockets which should be added.

2. The Policy of the Railway Board is to standardise in the immediate future certain types of locomotives, carriages and wagons for all Railways in India and when this is accomplished, all parts of any one type will be interchangeable and, as far as possible, standard parts will be used for different types. Certain of the castings mentioned have been standardised but are liable to revision during the next two or three years.

3. This Railway is not in a position to give a definite opinion in this case.

4. (a) The following is a list of approximate total weights of castings obtained as components of new rolling stock annually from 1921-22 onwards:—

	B. G. Tons.	M. G. Tons.	Total Tons.	
1921-22	30	—	30	} As per details in separate list enclosed as Annexure 'A'.
1922-23	141	32	173	
1923-24	28	—	28	
1924-25	10	—	10	
1925-26	164	17	181	

(b) As detailed in separate lists enclosed as Annexures B, C and D.

(c) Nil.

5. With regard to the steel castings falling under heading (a) this railway is unable to give the information required in detail as all the castings were obtained as components of the complete engines, carriages and wagons; as regards the steel castings falling under heading (b) rates have been noted on Annexures B, C and D against each item as far as available.

6. (a) Arrangements are made by the Consulting Engineers to the India Office for Inspectors to test and pass material in the country of origin as far as possible.

(b) When the country of origin is distant from the Consulting Engineers jurisdiction, for example, America, etc., inspection and test are made in India at the request of Director General of Stores, London, and in such cases 10 per cent. of supplier's bill is withheld till such time as the consignment have arrived in India and been inspected and found satisfactory.

7. Steel castings are not manufactured in the Eastern Bengal Railway Workshops.

8. Nil.

9. Axle boxes are not manufactured in the Eastern Bengal Railway Workshops.

10. (1) Messrs. Hukumchand Electric Steel Works Co., Ballygunge, Calcutta.

(2) The Bombay, Baroda and Central India Railway, Ajmere.

The experience of this railway is that these castings are not as good as English castings, the metal is inclined to be porous, the finish is rough and machining tolerances are heavy.

11. Please see replies to questions 4 and 5.
12. (a) (1) For reply please see Annexure E.
12. (a) (2) For reply please see Annexure F.
12. (b) Steel castings are not manufactured by this railway.
13. Quantities are shown in Annexure D.
None of our requirements have been met from our Workshop.
14. Please refer to Annexure D.
15. 70 cwts. per year.
16. Cast iron steel boxes are gradually being replaced by steel boxes, but no programme is laid down.
17. A well designed steel box subject to ordinary wear and tear should last the life time of the Engine or Vehicle under which it is running. A cast iron box will last about 4 to 5 years but is very readily broken by rough shunting or in accidents.
18. The matter is being considered by the Railway Board and the present position is not known to this administration. There are altogether 9,810 units of rolling stock on this railway including engines on the line. If the Railway Board decide to adopt central couplers, this railway will, therefore, require 19,620 altogether. The annual requirements during conversion will depend entirely on the policy adopted by the Railway Board.
19. This question may be referred to the Railway Board.
20. The average annual quantity of steel scrap excluding borings, turnings, shavings, etc., sold by auction between 1921 and 1925 and the average price per ton realized therefrom are shown in Annexure G.
The last part of the question is under enquiry.
21. The location of the principal workshops are at Kanchrapara and Saidpur. Freights at railway material rate from Ballygunge and Ishapur works to Kanchrapara and Saidpur are shewn in Annexure H.
22. This administration is not in favour of protection, but if it has to be given, it is suggested that loans on easy terms as presenting the least objectionable features be allowed.

ANNEXURE "A".

Total weights of castings obtained as components of new rolling stock annually from 1921-22 onwards.

Years.	Engines.	Coaches.	Wagons.	Total.
	Tons.	Tons.	Tons.	Tons.
<i>Broad Gauge.</i>				
1921-22	18	12	...	30
1922-23	50	11	80	141
1923-24	19	...	9	28
1924-25	10	...	...	10
1925-26	144	...	20	164
TOTAL .	241	23	109	373
<i>Metre Gauge.</i>				
1921-22 . . . . .	...	...	...	...
1922-23 . . . . .	...	...	32	32
1923-24 . . . . .	...	...	...	...
1924-25 . . . . .	...	...	...	...
1925-26	17	...	...	17
TOTAL .	17	...	32	49

ANNEXURE "B".

Purchased from the Hukumchand Electric Steel Works.

Description of Stores.	1921, 1922 and 1923.	1924.	1925.
Cast Steel Head stock Bracket of sizes .	Nil.	...	1,000 - Rs. 38 each.
Block Cast Steel special for Lock Bars 90 lbs. and 75 lbs. F. B. Rails of sizes.	"	20—Rs. 56 cwt.	55— ,, 56 cwt.
Cast Steel Cruciform special Pump Block	"	Nil.	16— ,, 45 ,,
Cast Steel Check Block of sizes . . .	"	20— Rs. 56 ,,	91— ,, 56 ,,
Brackets Cast Steel for Bogie Centre . .	"	24— ,, 45 ,,	200— ,, 45 ,,
Crank Escapement (Cast Steel rough) . .	"	50— ,, 56 ,,	44— ,, 56 ,,
Half Crank (Cast Steel rough)	"	50— ,, 56 ,,	44— ,, 56 ,,
Cast Steel Horn Stays	"	Nil.	6— ,, 42 ,,
Axle Box Cast Steel 7" × 3½" Journals . .	"	"	100— ,, 25 each.
Axle Box Cast Steel machined but without Brasses 10" × 4½" × 7½" with 1" groove.	"	"	50— ,, 32 per box
Cast Steel Dies with the impression 3'— 3' × 18" × 14" to pattern.	"	1—Rs. 36 cwt.	Nil.
Dove Tail Rough Cast in the block . . .	"	1— ,, 36 ,,	"
Dies Cast Steel as per pattern	"	2— ,, 54 ,,	"
Cast Steel Lock for Check Block 90 lbs. F. F. of sizes.	"	prs. 140— ,, 45 ,,	"
Cast Steel Casting Point Adjusting Screws 1¼".	"	300— ,, 4 each.	"
Cast Steel Pawl Wheels for overhead Travelling Crane.	"	2— ,, 40 cwt.	"
Cast Steel Casting as per Brass pattern Nos. A. B. C. weight 1 qr. 4 lbs.	"	3— ,, 56 ,,	"
Cast Steel Rough Covers for Manhole . .	"	6— ,, 40 ,,	"
Axle Boxes Casting unmachined without fittings or bearings.	"	250— ,, 26 each.	"

ANNEXURE "C".

Purchased from the Gun and Shell Factory.

1922.

Piston Forging (Rough) C. & S. per Loco's Drawing No. 19337	1 —	Rs. 1,100
Cast Steel Die Blocks 16" x 6½" x 5½"	24 —	„ 975-6-4 for the lot.
. 11" x 6½" x 5½"	24 —	„ 702-2-9 do.

Cast Steel Die Blocks for Drop
Hammers:—

Pairs.

20" x 10" x 10"	2	} Ra. 30 cwt.
16" x 16" x 10"	2	
21" x 9" x 10"	3	
14" x 14" x 10"	2	
16" x 12" x 10"	3	
14" x 8" x 10"	3	
17" x 12" x 10"	3	
12" x 9" x 10"	6	
10" x 8" x 10"	6	
16" x 10" x 10"	3	

1924.

Axle Rough forged 10" x 5" as per specification and Drawing No. 10906	No. 100 —	Rs. 165 each.
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1925.

	No.	
Axle D. & J. Class Engine Bogie	4 —	„ 190 „ F. C. R. Ishapore.
Axle D. & G. Class Engine Tender	12 —	„ 215 „ do.

ANNEXURE "D".

Steel castings used for General Engineering purposes for the years 1923-24 to 1925-1926.

Description of Material.	1923-24.		1924-25.		1925-26.	
	Quantity.	Rate per Cwt.	Quantity.	Rate per Cwt.	Quantity.	Rate per Cwt.
	Cwt.	Rs.	Cwt.	Rs.	Cwt.	Rs.
Crank Escapament	20 0 0	52 12 0	11 0 16	58 10 0	7 2 14	46 0 0
Cast Steel Dies	3 0 0	52 12 0	...	...	...	...
Cast Steel Lock Bar	...	...	20 0 20	58 10 0	3 3 0	46 0 0
Point Adj. Screw 1 1/4"	...	...	13 1 16	58 10 0	...	...
Cast Steel Half Crank	...	...	5 1 4	58 10 0	4 1 14	46 0 0
C. S. Check Block	...	...	...	58 10 0	2 2 0	46 0 0
C. S. Cruciform Ram Blocks.	...	...	...	...	25 2 0	46 0 0
C. S. Blocks	...	...	...	...	30 1 0	19 0 0

ANNEXURE "E".

Estimated Annual requirements of steel castings for repairs and renewals of Locomotives and wagons and carriages for 1927-28 to 1931-32.

LOCOMOTIVES.

	Broad Gauge.			Metre Gauge.		
Axle Boxes	12	Approx.	weight 18.5 Cwts.	12	Approx.	weight 10.3 Cwts.
Buffers	40	"	" 81 "	12	"	" 26 "
Horn Blocks	12	"	" 29 "	12	"	" 11.25 "

CARRIAGES AND WAGONS.

Axle Boxes	1,000	Approx.	weight 593 Cwts.	1,000	Approx.	weight 500 Cwts
Buffers	1,600	"	" 3,200 "	700	"	" 1,050 "
Bogie centres	Nil.	"	" ...	150	"	" 115.2 "
Brackets	Nil.	"	" ...	920	"	" 820 "

ANNEXURE "F".

Estimated requirements of steel castings as parts of locomotives, wagons and carriages imported and re-erected or built in India.

Year.	Loco- motives (complete).	Boilers.	Carriage under- frames.	Wagons.	TOTAL.
	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Broad Gauge.</i>					
1927-28	43.5	225	20.4	13.5	77.265
1928-29	68.75	...	19.30	27.00	115.05
1929-30	27.5	...	8.52	1.00	37.02
1930-31	41.25	...	7.78	5.85	54.88
1931-32 . . . . .	...	...	7.04	...	7.04
	181.00	225	62.68	47.35	291.255
<i>Metre Gauge.</i>					
1927-28 . . . . .	...	903	...	58.8	59.703
1928-29 . . . . .	...	...	19.07	42.3	55.37
1929-30 . . . . .	...	...	16.35	68.7	85.05
1930-31 . . . . .	...	...	19.82	55.0	74.82
1931-32 . . . . .	...	...	15.22	6.8	22.02
	...	903	64.46	231.60	296.963

ANNEXURE "G".

Quantity and price of steel scrap (other than borings, turnings, shavings, etc.) placed on the market from 1921-22 to 1925-26.

	Quantity of steel scrap sold.	Average rate per ton.
1921	1,934 tons.	Rs. 103 per ton.
1922	1,108 "	" 51 do.
1923	1,234 "	" 44 do.
1924	1,511 "	" 42 do.
1925	1,078 "	" 44 do.

ANNEXURE "H".

Statement showing freight at Railway Material rate from Ballygunge and Ishapore works to Kanchrapara and Saidpur.

Ballygunge to Kanchrapara	at Railway material	rate	0 0 3	per maund.
„ to Saidpur	do.		0 2 2	do.
Ishapore to Kanchrapara	do.		0 0 1	do.
„ to Saidpur	do.		0 2 1	do.

**3. THE MADRAS AND SOUTHERN MAHRATTA RAILWAY COMPANY,
LIMITED.**

Letter, dated the 19th June 1926, giving replies to questionnaire concerning steel castings.

Referring to your questionnaire relating to the purchase by this railway of steel castings for locomotives, railway carriages and wagons, I have the honour to reply as follows:—

1. The following is a list of principal steel castings required for locomotives, carriages and wagons. The list given by the Hukumchand Electric Steel Works Company covers practically all these items.

1. (a) *Locomotives*.—The following are the steel casting received with the locomotives:—

- Fire door.
- Smoke box saddle.
- Frame stretchers.
- Drag casting.
- Bogie casting (centre).
- Piston head.
- Piston valve head.
- Reversing rod guide.
- Motion girders.
- Slide bar bracket.
- Reversing link carrier.
- Wheel centres.
- Axle boxes.
- Horn blocks.
- Compensating beam carrier.
- Spring link bracket.
- Platform support.
- Brake shaft carrier.
- Bogies frame stay.
- Tender drag casting.
- Tender wheel centres.

1. (b) *Carriage and wagon*.—Particulars of steel castings ordered on Home Indents for underframes:—

- Truss rod brackets.
- Bogie centre top casting.
- Bogie centre bottom casting.
- Side friction block (top) R. & L.
- Side friction block (bottom) R. & L.
- Upper spring shoe.
- Lower spring shoe.
- Brockbar carrier.
- Bolster side check spring saucer.
- Axle box body.
- Axle box key plate.
- Axle box face plate.
- Queen post.
- Auxiliary bearing spring box.

2. Yes, axle boxes, buffers, motion plates, piston valve heads, horn blocks.

3. I am unable to say but can only state that when we have placed orders for steel castings in India we have had considerable difficulty in getting the material, promised delivery dates are not kept, orders being complied with months after promised dates if at all. The quality of the castings has not been up to the standard of imported castings.

4. The total weight of steel castings used each year from 1921-22 is as follows:—

Broad Gauge.

(a) Imported from England and used during the year.

1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.
Tons.	Tons.	Tons.	Tons.	Tons.	Ton.
2	5½	6½	84½	7	1

Imported from France and used during the year.

1926-27.
Tons.
1½

(b) Manufactured in India.

1925-26.	1926-27.
Tons.	Tons.
4	6

(c) Manufactured in Railway Shops.

Nil.

Metre Gauge.

(a) Imported from England and used during the year.

1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
14	35	31	19	28	<i>Nil.</i>

Imported from Germany and used during the year.

1922-23.
Tons.
3½

Imported from France and used during the year.

1925-26.
Ton.
1

(b) Manufactured in India.

Nil.

(c) Manufactured in Railway Shops.

Nil.

5. Prices paid per cwt. are as follows (B. G. and M. G.):—

(a) Imported from England.

1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Approx. £3	Approx. £4	Approx. £2-10-0	Approx. £3-10-0	Approx. £2-10-0
per cwt. f.o.b.	per cwt. f.o.b.	per cwt. f.o.b.	per cwt. f.o.b.	per cwt. f.o.b.
Imported from France. 1925-26.			Imported from Germany. 1922-23.	
Approx. £3-10-0 per cwt. f.o.b.			Approx. £2-10-0 per cwt. f.o.b.	

Freight charges work out to approximately £2-5-0 per ton and landing charges are Rs. 5 per ton.

(b) Manufactured in India.

1923-24.	1925-26.	1926-27.
Approx. Rs. 35	Approx. Rs. 38	Approx. Rs. 36
per cwt.	per cwt.	per cwt.

6. Castings imported from Europe are dealt with entirely by the Home Board through their Consulting engineers and no additional tests are carried out in India. Those manufactured in India are tested at the Government Test House, Calcutta.

7. No castings are manufactured.

8. Nil.

9. No cast steel axle boxes made.

10. Kirtyanand Steel Foundry, Hukumchand Steel Foundry. Castings not of such good quality as imported, deliveries most unsatisfactory.

11. Regret we cannot give this as figures are not available.

12. (a) (1) and (2). Cannot estimate this.

(b) Nil.

13, 14 and 15. No steel castings are used for General Engineering purposes.

16. No.

17. Reliable figures are not available, cast steel boxes may be taken to have four times the life of cast iron boxes.

18. Central couplers cannot be adopted by a single railway; if it is ever done, the type will be made standard for all railways by the Government of India.

19. From our experience of delay and trouble with small orders, it is considered that extensive changes would be necessary before large orders can be dealt with.

20. Steel scrap is usually sold annually and the quantities including springs flat, volute and spiral tyres C. and W. and engine tyres amounted to the following, average prices were offered for the same:—

	Tons.	Average price per ton offered. Rs.
August 1921	925	60
September 1922	715	34
October 1923	877	30
October 1924	823	24
September 1925	578	19
February 1926	221	13

Taking the sale of steel castings only, the following figures are obtained:—

	Tons.	Average price offered per ton.
		Rs.
August 1921	65	52
September 1922	85	35
October 1923	262	14
October 1924	45	10
September 1925	205	14
February 1926	57	12

None of the above scrap consisted of borings, turnings, etc., which are utilized by the workshops for their own requirements.

21. The principal workshops are at Perambur, Hubli, and Arkonam, and the railway freight per cwt. for the carriage of castings from Calcutta is Re. 1 per cwt.

Imported castings for B. G. are usually shipped to Madras Harbour and the freight per cwt. from Madras Harbour to Perambur Works is one pie per cwt.

Imported castings for M. G. are usually shipped to Mormugao Harbour and the freight per cwt. from there to Hubli is one anna six pies. per cwt.

22. I am of opinion that there should be no duty on imported steel castings, if protection is essential it should take the form of a subsidy or bounty.

4. THE ASSAM-BENGAL RAILWAY COMPANY, LIMITED.

Letter to the Tariff Board, dated the 26th June 1926.

With reference to your letter No. 226, dated the 10th May 1926, I have the honour to forward herewith for your disposal a copy of the replies to the questionnaire on the above subject drawn up by my Superintendent of Stores in consultation with the Locomotive Superintendent.

As regards the reply to question 22 whilst admitting the desirability of being able to obtain good steel castings in India I would strongly deprecate any bounty feed or protection scheme and see no reason why Iron and Steel Manufacturers in India should not stand or fall on their ability to compete in the open market with the products of other countries both as regards cost and quality of work turned out.

Replies to questionnaire regarding steel castings for locomotives, railway carriages and wagons.

1. Enclosed is a list of the principal steel castings required for our locomotives, carriages and wagons.

(a) and (b) As far as can be judged from the description given the list of castings which the Hukumchand Electric Steel Works claim to be in a position to manufacture covers all steel castings required for the maintenance of locomotives, carriages and wagons on this railway.

2. All axle boxes of the various classes of the Standardization Committee's type on this railway are standard: four classes of locomotives using the same axle box for the coupled wheels, three classes the bogie axle boxes are the same and three classes the tender axle boxes are all interchangeable. The cast steel buffer heads of all classes of locomotives are also of one pattern. We have a very large number of classes of coaching and goods stock but we have only five types of axle boxes for these. The cast steel buffer heads are standard and of one pattern for all our coaching and goods stock.

3. As far as I am aware there is no inherent difficulty involved in the process of manufacture or in obtaining raw material which will prevent economic production in India of cast steel castings for our rolling stock.

4. (a) Imported.

	C. Q. lb.
1921	143 1 4
1922	180 1 26
1923	105 1 4
1924	89 2 15
1925	32 3 24

(b) Cast in India.

	C. Q. lb.
1921	13 4 21
1922	50 1 13
1923	30 3 18
1924	47 1 26
1925	109 3 1

(c) We have no plant for the manufacture of steel castings in the Railway Workshops at Pahartali.

5. (a) Imported.

	Rs.	A.	P.	
1921	144	2	6	per cwt. } c. i. f. price
1922	135	13	3	„
1923	105	5	9	„
1924	180	14	7	„
1925	122	0	10	„

(b) Cast in India.

	Rs.	A.	P.	
1921	41	15	0	per cwt.
1922	31	8	11	„
1923	40	5	0	„
1924	41	3	6	„
1925	43	6	9	„

NOTE.—The prices given above appear very much in favour of the Indian manufacture. But it must be recognized that the Indian price represents the bare casting f.o.r. manufacturers' siding. Patterns and core boxes are supplied by us and all machining done in the Railway Workshops. English castings are received ready finished. Take an engine driving wheel axle box, it comes out fitted with brass channel liners and crown bearing brasses complete and ready for service which is quite different to the rough foundry casting.

(1) As far as our records show no steel castings have been imported from the Continent.

6. (a) All steel castings whether made in England or on the Continent are inspected by Inspectors under our Consulting Engineers.

(b) No arrangements have so far been made for the testing of castings made in India.

7. Please refer to paragraph 4 (c).

8. Please refer to paragraph 4 (c).

9. Please refer to paragraph 4 (c).

10. We have obtained steel castings from Messrs. Hukumchand Electric Steel Works and also from the Kirtyanand Iron and Steel Works. The quality and workmanship of the castings turned out by both these foundries do not compare favourably with the English made articles. The castings are often very rough and in the case of buffer heads are often warped and they require very careful setting up in a machine to get the faces true with each other.

11. The approximate weights of steel castings imported is as follows:—

Locomotives—

	Cwts.
1921	Nil.
1922	1,576
1923	Nil.
1924	Nil.
1925	Nil.
1926	Nil.

Carriage and Wagon—

	Cwts.
1921	Nil.
1922	85
1923	2,381
1924	578
1925	82
1926	Nil.

I regret being unable to give the information asked in this paragraph as regards prices. Contracts for locomotives, carriages and wagons are for the complete locomotive and wagon or complete underframe for the carriage as the case may be. No detail prices are given in any of our invoices.

12. (a) (1) From past consumption it is estimated that our requirements of cast steel will not be more than seven tons per annum during the next five years.

(2) The estimated requirements of steel casting as parts of locomotives, carriages and wagons to be imported are as follows:—

	Cwts.
1926-27	2,685
1927-28	1,131
1928-29	642
1929-30	628
1930-31	628

(b) It is not anticipated that we shall put down a steel plant for a number of years to come so that none of our requirements for steel castings will be met from our own workshops.

13, 14 and 15. Practically no steel castings are used by the Engineering Department and the quantity either used or likely to be used would not amount to one ton in five years.

16. Only a small proportion of the rolling stock on this railway is fitted with cast iron axle boxes. For such stock we have not adopted any definite scheme for the replacement with cast steel axle boxes and have no intention of adopting such a policy. Any box broken is replaced with a cast steel box, beyond this we shall not replace cast iron boxes.

17. Cast steel boxes do not break in the case of ordinary derailments as cast iron boxes do. Beyond this the life of a cast iron box is equal to a cast steel one. Should a cast iron box wear badly in the axle guard channels it can be lined up at much less expense than replacing with a cast steel box.

18. We have no experience of automatic centre buffer couplers, all our stock being fitted with the Jones' centre buffer. It is not anticipated that we shall depart from our present standard.

19. It is impossible to pass an opinion without experience of the automatic centre buffer couplings.

20. The annual amount of steel scrap sold is as follows:—

	Tons.		
1921	22.65	average price	Rs. 24-0-0 per ton.
1922	120.00	,,	Rs. 17-4-0 ,,
1923	128.00	,,	Rs. 10-5-4 ,,
1924	<i>Nil.</i>	,,	...
1925	123.625	,,	Rs. 11-8-0 ,,

We have so far not been able to obtain a purchaser for any of our steel borings, turnings, shavings, etc., no offer ever having been received for same.

21. The Railway main workshops are situated at Pahartali 2½ miles from Chittagong. The railway freight from Calcutta to Pahartali is Re. 0-8-6 per cwt. Imported castings are landed at the Port of Chittagong, the railway freight from the Port to Pahartali being 1½ pie per cwt., both rates are railway material concessional rates.

STEEL CASTINGS FOR K-4 CLASS ENGINE.

Item No.	Names of Parts.	Number per engine.	REMARKS
1	Frame stretcher in front of fire box	1	
2	Motion plate frame stretcher	1	
3	Stretcher plate between L. & D. wheels	1	
4	Slide bar bracket (right)	1	
5	do (left)	1	
6	Drag casting	1	
7	Axle box (coupled wheels)	8	
8	" " bogie	4	
9	Bogie horn plate clip	4	
10	Driving horn block	2	
11	Leading & Trailing horn block (right)	3	
12	Do do (")	3	
13	Do do (left)	3	
14	Do do (")	3	
15	Bogie axle box guide (right)	2	
16	Do do (")	2	
17	Do do (left)	2	
18	Do do (")	2	
19	Platform support (Int. & 3rd)	4	
20	Do (front)	2	
21	Reversing screw bracket	1	
22	Buffer head	1	
23	" spring casing	2	
24	" " washer	2	
25	Draw bar shank washer	1	
26	Brake shaft carrier (centre)	1	
27	Side spring socket	1	
28	" " " washer	1	
29	Frame stretcher (bogies)	1	

STEEL CASTINGS FOR K-4 (TENDER)

Item No.	Names of Parts.	No. per tender.	REMARKS.
<i>Tender.</i>			
1	Drag casting	1	
2	Hind draw box	1	
3	Axle box (front & hind)	8	
4	" " (door)	8	
5	Frame fork keep	8	
6	Bogie centre top casting	2	
7	" " bottom "	2	
8	Side stop	8	
9	Brake hang-r bracket	8	
10	Hand brake shaft carrier	2	

K-4 BOILER.

1	Fire door	1	
2	Smoke-box bottom casting	1	
3	Bogie centre casting	1	

GOODS STOCK TYPE $\frac{C. 47}{10}$ (4-wheeled).

1	Horn check	8	
2	Buffer head for yoke buffer	1	
3	" " hook "	1	
4	Draw spring washer	2	
5	Spring case inside	2	
6	" " outside	2	
7	Cylinder carrier	2	
8	Axle box	4	

COMPOSITE 1ST AND 2ND CLASS CARRIAGE. TYPE $\frac{C. L.}{2}$

Item No.	Names of Parts.	No. per vehicle.	REMARKS.
1	Bogie top centre pivot	2	
2	" " bottom " "	2	
3	Bolster suspending cross bar casting	4	
4	Bottom side bearer	4	
5	Side bearing spring cup	8	
6	Bufferhead for yoke buffer	1	
7	" " hook " "	1	
8	Draw spring claw washer	2	
9	Outside spring case	2	
10	Inside " "	2	
11	Axle box	8	

BOGIE TIMBER TRUCK TYPE $\frac{T. T.}{4}$

1	Horn Check	8	
2	Spring hanger bracket	16	
3	" " " "	16	
4	Cylinder carrier (vac.)	4	
5	Bogie side bearer	4	
6	Bufferhead for yoke buffer	1	
7	" " hook " "	1	
8	Draw spring washer	2	
9	Inside spring case	2	
10	Outside " "	2	
11	Axle box	8	

Tinplate.

XIX.—Applications dealing with the Manufacture of Tinplate.

1. THE TINPLATE COMPANY OF INDIA, LIMITED.

Representation, dated the 5th May 1926.

We refer you to your Press Communiqué, dated 16th April, and have the honour to submit below our representations.

Our industry is still in its early stages and requires assistance for a further period whilst our labour becomes fully trained and we are able to adapt and perfect our operations to suit the conditions under which tinplate has to be manufactured in India.

During 1925 we obtained an output of 620,000 basis boxes at a cost of Rs. 1,791 per 100 basis boxes. This shows a great improvement over the previous year and is Rs. 17 per 100 boxes less than the estimated cost figure given in our letter of 30th April 1925. Prices of tinplates unfortunately fell steadily during the year and our average price realised was Rs. 1,740 per 100 boxes only which is Rs. 90 per 100 boxes lower than our estimated figure. As against the price in Wales of 23s. 3d. per basis box in January 1925, the year finished with a price of 19s. 10½d. only with the result that on cost of production alone there is a deficit over the year of Rs. 51 per 100 boxes to which must be added depreciation and interest figures.

In our cost figures given above steel is taken at Rs. 113.18 per ton which is the average of the prices paid to the Tata Iron and Steel Company, Limited, and against outside purchases, and we have not taken into consideration any settlement under the profit and loss sharing arrangement. We have arranged with the Tata Iron and Steel Company, Limited, for supplies of our full requirements during the year 1926 at Rs. 84 per ton but this is a temporary arrangement only whilst various points in dispute between the parties are subjected to judicial interpretation. The reduction in the cost of steel will lower our figure of costs by Rs. 182 per 100 boxes but the price of tinplates is now only 19s. 4½d. and our return, unless conditions improve during the remainder of the year, will be lower than that for 1925, not taking into account the increase in protection of Rs. 25 per ton lately granted to the tinplate industry and the reduction in the duty on tin. This current price of tinplates, we understand from the trade papers, does not pay the Welsh manufacturers and schemes are being considered for reduction in output. If these eventuate prices should show an immediate improvement.

Simultaneously with this fall in rates we have, however, been able to procure reductions in our costs in various directions. The price of coal has declined to the extent of Rs. 2 to Rs. 2.8 per ton and this same cause has led the Tata Iron and Steel Company to reduce the cost of power from 10 pies per unit to 9.24 pies per unit. The price of sulphuric acid has been reduced by Rs. 5 per ton and we now pay only annas 9 per ton to the Metallurgical Inspector for examining our steel instead of annas 12 paid in 1925. Every possible method of economising in our Works operation is being investigated and steps are being taken to reduce costs to a minimum in all directions in which this is feasible.

During the first quarter of this year the outturn at Works was 186,000 boxes as against 168,000 boxes for the same period of 1925 and given freedom from industrial disturbances, or serious break-downs in our plant or power supply, the outturn for the year should be in excess of the 1925 figure which was in itself in excess of the output for which the plant was designed.

During the latter part of 1925 we commenced to instal a smaller type of tinning machine which is giving better results and yields of raw materials but we have yet to test these machines during the monsoon when our greatest difficulties arise. The re-organization is not yet complete and it is early yet to form any definite estimate of the saving which will accrue, but there is no doubt that a reduction in costs will result.

We trust that the information given above will show you that continued and substantial improvements are being made and that satisfactory results may confidently be looked for in the future.

The question of the re-organization of the capital of the Company is now under consideration and we hope very shortly to discuss the question fully with the Tata Iron and Steel Company, Limited, in Bombay and that a mutually satisfactory accommodation will be arranged between the parties. An outline of the scheme of re-organization suggested has been forwarded to the Honourable Member for Commerce and Railways.

Although the progress of the Company is steady and assured it still requires the full measure of protection granted to carry it over at least until such a time as it has been able to acclimatise itself to the entirely new conditions under which it has to work in this country and until the Indian labour is fully skilled in all the very difficult operations involved.

Enclosure.

Statement showing probable profits and losses during 1926 as compared with 1925. (These figures do not take into account Depreciation and Interest.)

	Rs.	
Saving in the cost of steel	182	per 100 boxes.
<i>Saving for the year in the cost of—</i>		
	Rs.	
Power	55,000	
Coal	75,000	
Inspection	8,000	
Acid	14,000	say 21 do.
	<u>203</u>	per 100 boxes.
Less loss in 1925	51	
	<u>152</u>	
Less fall in price say 2s. 2d. per box	144	
	<u>8</u>	per 100 boxes.
Nett profit on basis of protection in force in 1925		
On 700,000 boxes, say	56,000	
Increase in duty Rs. 25 per ton on 33,000 tons	8,25,000	
Saving in tin duty of Rs. 275 per ton on 500 tons	1,37,500	
	<u>10,18,500</u>	
Gross profit (excluding depreciation and interest)		

In taking the duty on 33,000 tons of tinplate only we have taken into consideration the fact that we obtain no added duty on casings for tinplates as duty is charged on the nett weight of a box only.

The figure of 700,000 boxes for the output is the maximum we can hope to attain over the year.

2. CORRESPONDENCE WITH THE WELSH PLATE AND SHEET MANUFACTURERS, LONDON.

Copy of letter No. 233, dated the 11th May 1926, from the Secretary, Tariff Board, to the Welsh Plate and Sheet Manufacturers' Association, London.

In reply to your letter, dated the 15th of April 1926, I am to confirm the following cable which was despatched to you on May the 8th.

"Your letter fifteenth April last date for submission written representation thirtieth June for appearance of delegation seventh August—Letter follows."

I am further to enclose copies of correspondence on the subject matter of your letter which has already passed between this office and that of His Majesty's Trade Commissioner in India. It will be seen therefrom that the Tariff Board have fixed the 30th June 1926 as the latest date for submission of any written representation your Association may wish to make and August the 7th as the latest date for the hearing of oral evidence. I am to request that intimation may be given as soon as possible and if convenient, by cable of the date on which the special delegation your Association proposes to send will arrive in India in order that arrangements may be made to hear its evidence immediately after its arrival. I am to add that the Board will be glad to give the delegation every assistance in regard to the provision of copies of such evidence from the Tinplate industry as may have been taken before it reaches India.

2. In regard to the questions raised in the third and fourth paragraphs of your letter, I am to emphasise the point already raised in the correspondence with His Majesty's Trade Commissioner in India that the general question of the fitness of the Tinplate industry in India for protection is only before the Board in their present enquiry to a limited extent. The Board have already held that the industry satisfies two of the conditions which were laid down by the Indian Fiscal Commission as essential to a successful claim for protection, *viz.*, that it possesses natural advantages and that it is an industry 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. There will, therefore, be no further examination of these two points, but subject to the qualifications mentioned in paragraph 106 of the Fiscal Commission's Report and in paragraph 29 of Chapter II of the First Report of the Tariff Board on the Steel Industry, the Board's enquiry will primarily be directed to ascertaining whether the industry now satisfies the third condition laid down by the Fiscal Commission that it is an industry which will eventually be able to face world competition without protection. In this connection I am to explain that whilst the Board will welcome from your Association the fullest and most detailed criticism of the methods by which their previous conclusions as to the amount of assistance required by the industry were reached and in particular will be glad to be given the specific instances referred to in paragraph 8 of your letter, it is obviously out of the question that they should make any statement as to the methods that will be followed in the present enquiry. All that can be said is that the information in the form suggested in the fifth paragraph of your letter will undoubtedly be of great use to the Board and that arrangements will be made to obtain it.

3. In paragraph 4 of the Board's letter to His Majesty's Trade Commissions in India, he has been informed that one of the points to which the Board have to direct their attention, when dealing with applications for protection is the cost of production. If the Association's representative, when he appears before the Board, is able to give detailed information of the cost of production in a tinplate factory in the United Kingdom reasonably comparable in size and equipment with that of the Tinplate Company of India at Golmuri, he will give the Board valuable assistance which will be of very material help in the forming of their conclusions. I am to say that the form in which this information has been called for from Indian manufacturers is attached to this letter. The Board would be glad if the information as to costs of produc-

tion in such a factory could be furnished in this form, and also if they could be supplied with copies of the cost sheets maintained by it in the ordinary way.

4. In reply to the penultimate paragraph of your letter, I am to say that the Board would be glad to have copies of the written statements it is proposed to submit at the earliest possible date. It would be of material assistance to the Board if at least twenty copies could be submitted in print and also if the paragraphs of all future communications from your Association were numbered. I may mention that in addition to the First Report regarding the grant of protection to the Steel Industry, the Board have published:—

1. Report of the Indian Tariff Board regarding the increase of the duties on Steel, with evidence volume and
2. Report of the Indian Tariff Board regarding grant of supplementary protection to the Steel Industry, with evidence volume.

These publications can be obtained from the Office of the High Commissioner for India and at the usual book-sellers in London.

Copy of letter No. 292, dated the 24th May 1926, from the Secretary, Tariff Board, to the Welsh Plate and Sheet Manufacturers' Association, London.

I am directed to acknowledge receipt of your letter of the 29th April 1926 and to say that on the 11th instant the Tariff Board sent you a copy of the correspondence which had passed between them and His Majesty's Trade Commissioner, Calcutta, in connection with your enquiries together with a letter which will explain the cables sent to you by the Trade Commissioner and the Board. This letter which should reach you on or about the 31st instant, will inform you of the arrangements made for the reception of any written representation your Association may wish to make and for the hearing of any delegation you propose to send.

2. I am to explain that the usual procedure of the Indian Tariff Board when dealing with an application for protection from an industry is that outlined below. When the Board is directed by the Government of India to examine the claim of an industry to protection, it invites firms and persons concerned to submit representations. These are published with an invitation to all persons interested, who favour or oppose the grant of protection, to send in representations containing their views and, if they so desire, to give oral evidence before the Board. In the meantime if it is found necessary, detailed questionnaires are issued to the firms or persons who have signified their intention of taking part in the enquiry, and dates are fixed for the hearing of their oral evidence. It is not the practice of the Board to call for proofs of the oral evidence to be submitted, the oral examination of the parties being directed mainly to the elucidation of points arising out of the representations and the replies received to the detailed questionnaires. The examination is not, however, confined to such points and any relevant matters may be touched upon by the Board. This procedure appears to differ somewhat from that which, you state in your letter, is commonly followed by Royal Commissions in England but the Board will be glad to receive a proof of the oral evidence you propose to submit as soon as it can conveniently be sent. Copies of the representations submitted by the Tinplate Company in the former enquiries conducted by the Tariff Board will be found on page 16 of Volume II of the evidence recorded during the first steel enquiry and on page 120 of the volume of evidence recorded during the enquiry regarding the grant of supplementary protection to the Steel Industry and a copy of that sent in by the Company for the present enquiry is enclosed. Copies of any further representations dealing with the question of the protection of tinplate manufacture which are received will be forwarded to you.

Copy of letter, dated the 16th June 1926, from the Welsh Plate and Sheet Manufacturers, London, to the Secretary, Tariff Board.

In reply to your communication No. 233, dated May 11th, 1926, and your further communication No. 292 of May 24th, 1926, we beg to submit as follows:—

- (1) It was not possible to reply to the former until the latter was received in London on June 14th, 1926.
- (2) This communication is being despatched by the first available mail, and a cable was despatched on the 14th as follows:—
 “ Your letter 292 May 1924 received to-day mailing further representations this week. Representative arranging attendance Calcutta for oral evidence August 3rd or subsequent days. Welsh Tinplate Manufacturers.”
- (3) Further to our original representation of April 15th, 1926, 25 copies of a printed statement dealing with the representation dated 5th May 1926 of the Tinplate Company of India to hand on June 14th are forwarded herewith.
- (4) Proofs of the oral evidence to be submitted will be forwarded as soon as it has been completed.
- (5) Efforts have been made to collect from the fifty separate firms of tinplate manufacturers the most accurate and authentic particulars of costs of production so as to arrive at the representative average in the trade. These particulars will, as requested, be forwarded as soon as possible, it is hoped by the next mail.
- (6) Any further information requested by cable up to July 9th will be answered by cable or brought by our representative Sir Edgar Rees Jones, K.B.R.

Representation by the Welsh Plate and Sheet Manufacturers, dated 16th June 1926, dealing with the representation submitted by the Tinplate Company of India, Limited, dated 5th May 1926, received in London on 14th June, 1926.

The representation now made by the Tinplate Company of India, Limited, in support of their request for a renewal of protection for tinplates for a further period, beyond the three years for which protection was originally granted as a temporary measure, has been considered by the Welsh Plate and Sheet Manufacturers, and they respectfully submit the following representations to the Tariff Board:—

A careful study has been made of the statements and evidence submitted by the Tinplate Company of India, Limited, in connection with the previous inquiries by the Tariff Board, and the facts have been considered in relation with the knowledge and experience of the Welsh Manufacturers.

After two years' working on a substantial scale, and a year's working on practically full capacity, it is now established that the operations of the Tinplate Company of India since 1923 have not demonstrated the ability of the Company to comply with the basic conditions governing the grants of protection as laid down by the Government of India and the Tariff Board, and more particularly as to the “eventual ability of the industry to dispense with protection altogether” or that it has “satisfied the third condition laid down by the Fiscal Commission that it is an industry which will eventually be able to face world competition without protection.”

This failure is manifested in the facts relative to the costs of production, and far more seriously in the facts relative to the tinplates and their marketing.

As to costs, the only hope of compliance with the basic conditions lay in a substantially lower "Labour Cost" in view of the enormous disparity between the wages in the Golmuri works and those paid in Wales. The "Labour Cost" is higher, and must continue to be higher than in Wales, if the basic conditions are to be fulfilled.

All other costs are substantially higher, and must of necessity continue to be higher.

The percentage of waste and the loss on such waste is very serious.

As to the tinplates and their marketing, there is no proof of capacity as general manufacturers of tinplates in the various commercial varieties. Up to the present the statements as to the capacity of the workmen and the organization are all unreal. They would be vitiated if and when the general manufacture of Tinplates on commercial lines were undertaken, and the costs of production would be so considerably increased that all present financial statements would have to be drastically revised.

The problem of "Wasters" is a fundamental handicap to success.

The ownership and control of the works, the nature of the production, and the conditions of the disposal of the production show that the Tinplate Company of India has not started an "industry" in the accepted commercial sense of the term, and is therefore not properly qualified to receive further protection.

In the meantime, owing to the protected operations of the Company the use of tinplates in India is being checked, and injury on various Indian trades and agriculture is being inflicted.

Contrary to the principle laid down that articles not manufactured in India shall not be subject to protection, the Tinplate Company of India, Limited, has obtained protection for three years covering such articles which it has not produced, and which if produced would have entirely altered the statements they put forward as to their progress.

The present representation of the Company, by the method of comparison adopted, adds to the confusion as to the situation that exists in the previous statements.

The falling prices set forth in paragraph 3 were before the Tariff Board at the previous inquiry, and were fully taken into account when the last increase in the duty was recommended. The reduction in the cost of steel and other materials mentioned do not reveal an improvement in the position because such reductions in world prices have been greater than those shown.

It seems clear to the Welsh Plate and Sheet Manufacturers from the statement that this Company has not become a commercial undertaking either in its constitution or operations, and that any further temporary period of protection will not prevent eventual failure to continue, and therefore involves serious injury to Indian interests without compensating benefits, and a check and disorganization of the tinplate trade, on which so many other trades depend.

XX.—Correspondence with the Tinsplate Company of India, Limited.

Copy of a letter, from the Tariff Board, dated the 27th April 1926, to the Tinsplate Company of India, Limited, Calcutta.

I am directed by the Tariff Board to ask you to forward for the Board's information:—

(i) Five copies of the Memorandum and Articles of Association of your Company.

(ii) Five complete sets of your Company's balance sheets to date.

(iii) A statement showing (a) the subscribed, (b) the paid up, share capital under various heads.

(iv) A statement showing your debenture issue, the rate of interest, the conditions as to redemption, etc.

(v) A statement showing the block value of your works under the following headings:—

(a) Land.

(b) Buildings.

(c) Plant and machinery.

(d) Miscellaneous.

(vi) A statement giving full details of the expenditure incurred year by year upon your works under the above headings and of the yearly depreciation you have actually allowed for. Where machinery, etc., has been bought in America its price should be quoted in dollars, giving the rate of exchange current at the time of purchase.

(vii) The present day replacement value of your plant and machinery, with a statement of your reasons for arriving at such value.

Five spare copies of each of the statements (iii) to (vii) may please be sent.

Letter, dated 20th/24th May 1926, from the Tinsplate Company of India, Limited, Calcutta.

We have the honour to acknowledge receipt of your letter No. 186, dated 27th ultimo in which you asked us to supply to you copies of our Memorandum and Articles of Association, Balance Sheets and various statements.

Your letter called for statements, etc., under seven headings and we now send you herewith:—

(1) Five copies of our Memorandum and Articles of Association.*

(2) Five copies of our Balance sheets* for the period ended 30th June 1920, the half-year ended 31st December 1920 and for the years ended 31st December 1921, 31st December 1922, 31st December 1923 and 31st December 1924. Our accounts for last year are not yet finally completed and we will send you copies of the balance sheet as soon as it is available.

(3) Six copies of a statement of our Share Capital, Enclosure 1.

(4) Six copies of a statement of our Debenture Issue, Enclosure 2.

(5) Six copies each of five statements, Enclosure 3 (a), (b), (c), (d) and (e) giving the information required concerning the Block Value of our Works and yearly expenditure upon it.

With reference to these last statements you required us to furnish figures showing the cost to the Company in rupees of its purchases on Capital Account year by year of plant paid for in dollars and in sterling but we beg to point out that up to the year 1924 a very large proportion of this Capital expen-

* Not printed.

diture had been financed by sterling loans raised from the Burmah Oil Company, Limited in the United Kingdom.

During the period 15th January to 27th March 1924 the Company raised money in India by issue of debentures and with the funds so obtained repaid (by remittance made through exchange banks) the loans above referred to. By the 27th of March 1924 the whole balance due to the Burmah Oil Company on 31st December 1923 (£504,820-9-11 as per our printed balance sheet of that date) had been remitted, the cost of this at sundry rates of exchange being Rs. 71,05,352.

It follows therefore that the cost to the Company of a very large share of its capital purchases does not appear in a final form (that is at final rates of exchange) in the accounts until 1924, when the loans were repaid.

The repayment of £504,820-9-11 was to meet the following finance which had been provided by the Burmah Oil Company:—

(1) Cost of \$1,407,000 supplied by B. O. C. to meet our New York purchases on capital account.	}	£334,456-2-4 Rs. 47,07,472-0-0.
(2) Cost of £116,591-1-9 expended by B. O. C. to meet our capital purchases in United Kingdom.		
Capital Account		£451,047-4-1 Rs. 63,48,493-0-0.
(3) Cost of £53,773-5-10, expended by B. O. C. to meet our purchases in the United Kingdom of operation stores.	}	£53,773-5-10 Rs. 7,56,859-0-0.
Revenue Account		
		<u>£504,820-9-11 Rs. 71,05,352-0-0.</u>

The cost to the Company of the above was Rs. 71,05,352 and a list is attached showing the dates of remittance and the rates of exchange.

At the end of 1924 the capital expenditure of the Company (leaving out Golmuri town) appeared in the balance sheet as Rs. 1,43,45,382-1-9, and this may be analysed as under:—

(1) Cost of remittances from Calcutta to New York to pay for "dollar" purchases. A list is attached showing the dates of these remittances and the rates of exchange. The remittances were made through the Hongkong and Shanghai Banking Corporation.	}	\$1,049,936 Rs. 40,13,419.
(2) Cost of remittances from Calcutta to London to repay to B. O. C. the cost to them of dollar loans raised to pay for further "dollar" purchases.		
(3) Total dollar expenditure on Capital Account.	}	\$2,456,936 Rs. 87,20,891.
(4) Cos of remittances from Calcutta to London to repay sums advanced on loan by B. O. C. for "Sterling" purchases on capital account.		
(5) Total rupee cost of "dollars" and "sterling" purchases on capital account.	}	Rs. 103,61,912.
(6) Capital expenditure in rupees in India		
(7) Total agreeing with balance sheet as at 31st December 1924.	}	Rs. 1,43,45,382.

As 1924 is therefore the first year in which our "dollar" and "sterling" expenditure appears at its cost value, we do not think that a yearly statement of capital expenditure previous to that can be of any practical use. We therefore attach the statement asked for as at 31st December 1924 and 31st December 1925, and a further statement showing depreciation written off for the year 1923.

You will see from these that the Company's American purchases on capital account cost \$2,456,936, which in turn cost Rs. 87,20,891, the average rate being Rs. 3563 to \$100; and that the Company's sterling payments on capital account totalled £116,591 and cost Rs. 16,41,021, the average rate being 1s. 5'048d.

With reference to your request for particulars of the present day replacement value of our plant we regret that we are not at the moment able to supply you with figures but we have cabled to our Home friends and will write further on hearing from them.

Enclosure 1.

Share Capital.

	Rs.
Total Authorised Share Capital	75,00,000
Total Subscribed Share Capital	75,00,000
Total Paid Up Share Capital	75,00,000

The Share Capital consists of 5,00,000 shares of Rs. 15 each of which 3,33,332 are held by the Burmah Oil Company, Limited and 1 by Mr. A. K. Faulkner as their representative, and 1,66,666 by the Tata Iron and Steel Company, Limited, and 1 by Mr. D. M. Madan as their representative.

Enclosure 2.

Debenture issue.

The Company's Debenture Issue consists of 833 Debentures of Rs. 15,000 each totalling Rs. 1,24,95,000 issued on various dates between 21st August 1922 and 28th March 1924.

Interest is payable half-yearly at the rate of 10 per cent. and interest on interest unpaid at the rate of either 10 per cent. or 1 per cent. over the Imperial Bank of India rate of interest on on-demand loans whichever be lower.

The Debentures are First Mortgage Debentures secured upon all the Assets of the Company and upon the benefits and rights enjoyed by the Company under its agreements with the Tata Iron and Steel Company, Limited and the Burma Oil Company, Limited subject to the obligations which it has incurred under those agreements. The principal becomes repayable if the Company defaults in any payment of principal or interest for a period of six months.

The total number of Debentures are redeemable in fifteen years from the date of issue and will become due as follows:—

Rs. 4,99,500 on 30th June 1928.

Rs. 12,49,500 on 30th June 1929.

Rs. 12,49,500 on the 30th June of each succeeding year up to and including 1937.

Rs. 7,50,000 on 30th June 1938.

Enclosure 3.

(a) Capital Expenditure to 31st December 1923.

	Expenditure per B-S. (before final adjustment on repayment of loans).	Depreciation written off in 19'3.
Hand	<i>Nil.</i>	<i>Nil.</i>
Buildings	Rs. 46,85,266	Rs. 1,03,209
Machinery	„ 86,09,004	„ 4,24,740
Miscellaneous	„ 10,85,543	„ 64,433
TOTAL	Rs. 1,43,79,813	Rs. 5,92,382

b) Capital Expenditure as shown in Balance Sheet, dated 31st December 1924 (contains adjustment for final Rates of Exchange.)

Asset.	Rupee Expenditure.	Dollar Expenditure.		Sterling Expenditure.		TOTAL.	Depreciation charged in 1924.
			Rs.		Rs.	Rs.	Rs.
Land . . . . .	...	...	...	...	...	Nil.	...
Buildings	} 28,62,040	} \$1,049,986	} 40,13,419	} £116,591	} 16,41,021	} 47,59,556	} 1,19,489
Machinery and Plant . . . . .								$1,407,000	47,07,472			84,44,406	6,76,552
Miscellaneous	11,21,421	...	...	...	...	11,21,421	73,757
TOTAL	39,83,470	\$2,456,986	87,20,891	£116,591	16,41,021	143,45,382	8,68,798

(e) Capital Expenditure as shown in Balance Sheet, dated 31st December 1925.

Asset.	Rupee Expenditure.		Dollar Expenditure.		Sterling Expenditure.		Total	Depreciation charged in 1925.
				Rs.		Rs.	Rs.	Rs.
Land . . . . .	...	...	...	...	...	...	Nil	...
Buildings	} 29,77,436	\$2,456,986	87,20,891	£116,591	16,41,021	} 47,81,118	1,19,528	
Machinery and Plant . . . . .									85,58,230	6,84,659
Miscellaneous	11,43,067	...	...	...	...	11,43,067	75,270	
TOTAL	41,20,503	\$2,456,986	87,20,891	£116,591	16,41,021	1,44,82,415	8,79,457	

356

(d) Remittances made to New York through the Hongkong and Shanghai Banking Corporation to meet the cost of Plant purchased in America.

Date.	Dollars.		Exchange Rupee to \$100	Rupee Cost.	
	§	cents.		Rs.	
14-8-1920	100,000	00	302	3,02,000	0 0
18-8-1920	11,878	33	299	35,516	3 3
18-9-1920	47,166	67	399	1,41,028	5 3
28-8-1920	7,183	33	304	21,837	5 3
14-9-1920	695	00	315	2,189	4 0
7-10-1920	1,239	60	333	4,127	14 0
23-11-1920	39,006	59	380	1,48,225	0 9
9-12-1920	22,000	50	420	92,402	1 9
13-12-1920	3,406	00	422	14,373	5 0
22-12-1920	24,864	19	411	1,02,191	13 0
28-12-1920	7,504	08	411	30,841	12 3
4-1-1921	4,716	41	400	18,865	10 3
11-1-1921	5,221	80	374	19,529	8 2
20-1-1921	63,684	98	379	2,37,576	1 3
8-2-1921	81,494	31	375	3,05,608	10 6
15-2-1921	6,393	14	383	24,141	0 6
26-1-1921	2,280	00	374	8,527	3 3
19-2-1921	3,553	01	384	13,643	9 0
22-2-1921	41,253	25	395	1,63,950	5 6
9-3-1921	64,364	09	419	2,69,685	8 6
24-3-1921	107,633	44	408	4,39,144	7 0
14-4-1921	57,450	00	400	2,29,800	0 0
5-5-1921	49,294	11	397	195,697	9 0
2-4-1921	228,473	01	400	9,13,892	0 9
19-5-1921	13,345	59	395	52,715	1 8
28-7-1921	1,924	59	445	8,564	6 9
27-4-1921	55,000	00	397	2,18,350	0 0
TOTAL	\$1,049,936	02	...	40,13,419	3 3

Average Rate 382.254

(e) Remittances made to B. O. C. London to repay Sterling Loans.

Date.	Rupees.	Exchange.		Sterling.		
		s.	d.	£	s.	d.
15th January 1924	3,00,000	1	5 $\frac{1}{2}$	21,289	1	3
„ „	2,50,000	1	5 $\frac{2}{3}$	17,805	19	10
„ „	10,00,000	1	5 $\frac{1}{2}$	71,354	3	4
„ „	11,00,000	1	5 $\frac{1}{8}$	78,776	0	10
„ „	7,00,000	1	5 $\frac{7}{8}$	50,221	7	1
18th „	3,00,000	1	5 $\frac{1}{2}$	21,562	10	0
21st „	3,00,000	1	5 $\frac{7}{8}$	21,523	8	9
25th „	7,00,000	1	5 $\frac{1}{2}$	50,312	10	0
31st „	7,00,000	1	5 $\frac{1}{2}$	49,674	9	7
10th March 1924	1,00,000	1	4 $\frac{3}{4}$	6,979	3	4
14th „	1,00,000	1	4 $\frac{1}{8}$	7,005	4	2
14th „	1,00,000	1	4 $\frac{3}{4}$	6,979	3	4
17th „	2,00,000	1	4 $\frac{3}{4}$	13,958	6	8
20th „	2,50,000	1	4 $\frac{1}{8}$	17,382	16	3
22nd „	1,00,000	1	4 $\frac{1}{8}$	6,953	2	6
22nd „	1,50,000	1	4 $\frac{4}{8}$	10,439	9	1
22nd „	3,00,000	1	4 $\frac{2}{3}$	20,898	8	9
24th „	2,00,000	1	4 $\frac{1}{8}$	13,906	5	0
24th „	1,50,000	1	4 $\frac{4}{8}$	10,439	9	1
27th „	1,05,352	1	4 $\frac{1}{8}$	7,359	11	1
TOTAL	71,05,352	—	...	504,820	9	11

Copy of a letter, from the Tariff Board, to the Tinplate Company of India, Limited, dated the 24th May 1926.

I am directed to say that the Tariff Board experiences some difficulty in approaching the enquiry into the continuance of protection to the tinplate making industry owing to the unusual position in which your company is placed by reason of the agreements into which it has entered with the Burmah Oil Company for the sale of its products, and with the Tata Iron and Steel Company for the purchase of sheet bar. It is understood from your demi-official letter No. 6457/28, dated the 20th May 1926 that all the information asked for in the Board's letter No. 186, dated the 27th April 1926 with the exception of that relating to the present day value of your plant, has been forwarded by you, though it has not yet reached the Board, but I am now directed to ask you to send 4 copies of each of the 2 agreements referred to above together with complete particulars as to the conditions under which your debenture issue was made, *i.e.*, the amount of debentures issued, the rate of interest payable, the conditions as to redemption, the rights of the debenture holders in the event of default in payment of principal or interest (including the amount of interest in arrears, if any), etc. Some of this information has already been asked for in the Board's letter of the 27th April, but it would be convenient if all the information required in connection with that aspect of your case which forms the subject matter of this letter could be furnished in a consolidated form.

2. In your representation No. T. P.-6402/28, dated the 5th instant, you state that an outline of the scheme of your capital re-organisation has been forwarded to the Honourable Member for Commerce and Railways. I am to say that the Board does not understand why a copy of this was not included in your representation, as the question is one to which the Board's attention has been specifically drawn by the Government of India, and would be glad if copies could now be sent.

3. I am to add that the Board also wishes to be informed exactly at what stage the litigation between your company and the Tata Iron and Steel Company now stands and to be furnished with a brief summary of the points at issue in that litigation.

4. In addition, I am to request that the information asked for above may be sent with the least possible delay as it appears to the Board very probable that an examination of it will show the desirability of holding a meeting between the Board and representatives of your company, of the Burmah Oil Company and of the Tata Iron and Steel Company in order that the exact nature and scope of any further information the Board may desire to have before commencing the public examination of the representatives of your Company may be explained. If such a meeting is held, the presence of representatives of the Burmah Oil Company will obviously be necessary in view of the position of that company as one of the two partners, as the holders of your debentures, and as the chief purchaser of your products. The presence of the representatives of the Tata Iron and Steel Company is equally necessary in view of the position of that company as the chief supplier of your raw material and also of the fact that by reason of its being the other of the two partners constituting your company, it is to all intents and purposes a joint applicant with you and the Burmah Oil Company for protection to the tinplate industry. Your letter of the 20th instant indicates that you are prepared to send a delegation to Shillong and I am to suggest the 16th June as a suitable date as representatives of the Tata Iron and Steel Company are appearing before the Board on the 14th of that month and would be able to remain here for such a meeting. I am to add that whilst the meeting would be of an informal character, a brief abstract of the proceedings would be drawn up and would form part of the published records.

5. The Tata Iron and Steel Company is being separately addressed with regard to this proposal.

Letter, dated the 2nd June 1926, from the Tinplate Company of India, Limited.

We have the honour to acknowledge receipt of your letter No. 281, of the 24th ultimo, and give below the information for which you ask.

We attach two copies of our agreement* with the Burmah Oil Company, Limited, in connection with the sale of Tinplates to them. We regret that these are the only copies we have in this Office. We are, however, getting others printed and will send you further copies.

We also enclose four copies of our Plaint* in the Suit filed against the Tata Iron and Steel Company, Limited. This Plaint includes our Agreement for the supply of Steel.

We gave you in our letter of 20th instant full particulars of the Debenture Issues of this Company and details of the Debenture Holders' rights. We enclose four copies of the Memorandum* of Agreement in connection with the issue of Debentures and trust that you will now have all the information which you require.

2. The Note to which you refer contained suggestions made by the Burmah Oil Company, Limited, regarding the reconstruction of this Company's Capital and agreements, and these were duly placed before the Tata Iron and Steel Company, Limited, the other partners in our Company. In the event the Steel Company submitted counter-suggestions which have been placed before the Burmah Oil Company in London by cable, and they should receive the writing in which these counter-suggestions are confirmed and more fully detailed on the 7th June. We expect that shortly thereafter further progress will be made in the negotiations between the Shareholders; meantime we understand that nothing has been decided.

3. The state of our litigation with the Tata Iron and Steel Company is as follows:—

We have filed our Plaint, copies of which are attached and the Steel Company are preparing their Written Statement which has not, as far as we are aware, yet been filed. The points at dispute will be clear to you from the copies of the Plaint and we do not therefore recapitulate them here.

We have also pending an Arbitration Case which we hope will shortly be settled. In this case we are claiming from the Steel Company £3 per ton on 19,000 tons of Steel which we maintain that they short supplied to us in the years 1924 and 1925, under an arrangement come to in London in supersession of our main Agreement. The issue, however, affects only these two years and has no relation to subsequent periods.

4. Your suggestion that a meeting should be held of the Board and representatives of this Company, of the Burmah Oil Company and of the Tata Iron and Steel Company is noted. We would, however, request that the meeting be held on June 17th and not on June 16th if this can be conveniently arranged.

We note that whilst the meeting will be of an informal character a brief abstract of the proceedings will be drawn up and will form part of the published records.

Statement IV.—Letter, dated 3rd June 1926, from the Tinplate Company of India, Limited, Calcutta.

In continuation of our letter of yesterday's date we have now received the printed copies of our agreement with the Burmah Oil Company, Limited, in connection with the sale of Tinplates to them and send you herewith two further copies of this agreement.* We also enclose two copies of our agreement* with the Burmah Oil Company, Limited, dated 13th January 1922, which is supplemental to the above agreement.

*Not printed.

Copy of letter No. T. P.-6145/29, dated the 24th June 1926, from the Tinplate Company of India, Limited, to the Secretary, Tariff Board.

With further reference to your letter No. 186, dated 27th April, 1926, we have the honour to advise you that we have now received a telegram from London advising us that Messrs. Perin and Marshall, New York, have telegraphed to them informing them that to-day's all-in cost of purchases made in the United States, including freight, works out at \$2,032,735 against the original cost of \$2,324,870. Confirmatory *pro formâ* invoices from suppliers are being forwarded to us. Purchases in the United Kingdom at the present day would cost £39,602 against the original cost of £54,779. On this basis we would make the replacement cost of our plant as follows:—

	Rs.
Dollar expenditure	56,51,297
Plus 4½ per cent. to Perin & Marshall, New York	2,54,308
Sterling expenditure	5,28,027
Local	39,83,470
Golmuri Town	16,74,517
TOTAL	1,20,91,619

Local expenditure and expenditure on Golmuri Town were almost entirely on account of forwarding materials to Golmuri, the preparation of the site and the election of buildings and machinery. We have made no deductions from these two items. The resulting figure shows that our original cost is some 33 per cent. above the cost of present day. We trust that these figures will give you the information which you require.

We are meantime working on a statement to show the yearly total value of machinery, building material and buildings debited by us to our Capital cost. This statement will, however, require a great amount of work and will not be ready for the present.

Copy of letter No. T. P.-6176/29, dated the 28th June 1926, from the Tinplate Company of India, Limited, to the Secretary, Tariff Board, Calcutta.

We were asked during our examination on June 21st for a note on the differences between the rolling of sheets and the rolling of blackplate such as is required for tinplates and we now have the honour to give this below.

The process of rolling blackplate differs considerably from rolling sheets. The measure of the difference may be gauged by the difference in the selling rates. Thus, "The Iron and Coal Trades Review" of 28th May 1926 quotes

Blacksheets 24 G.	£10-17-6
26 G.	£11-10-0
28 G.	£12-2-6
Blackplates P. & C. A. Rectangles 28 G.	£14-10-0

It will be seen that the price of blacksheet falls as the sheet gets thicker; and, as you know, the price per ton of blackplate or tinplate increases as it gets thinner, consequently, the price of 30 G. blackplate, which forms the bulk of our production, will be very much higher than the price of 24 G., 18 G. or 16 G. blacksheets, which from the bulk of Tatas' Sheet Mill production.

The main difference between the processes lies in the fact that we have to roll our plates once or twice more than a Sheet Mill. We finish our plate in "eights;" we rough down the pairs, match, double and re-heat; then we roll the "fours," double and re-heat; finally we roll the "eights." Thus, we have three heatings and four rollings.

In a Sheet Mill working 16/24 G., they rough, match, double and re-heat; and then finish. On some orders, they only rough down, match and finish.

Further, the thinner the sheets, the less the tonnage produced. For example we get less tonnage rolling 90-lb. plate than we get in rolling 30 G. plate: the number of boxes per shift is less, as well as the weight per box. It may be said that greater care is necessary, and therefore longer time is occupied, in rolling thin sheets than in rolling thick sheets. Average production per mill must therefore be much less in a Tinplate Works than in a Sheet Works.

Copy of letter T. P.-6166/29, dated 2nd July 1926, from the Tinplate Company of India, Limited, Calcutta, to the Secretary, Tariff Board, Calcutta.

We have the honour to enclose five sets of statements which at our examination on June 21st we were asked to prepare.

We regret that it has not been possible to submit these to you earlier but the compilation of many of the statements has required a considerable amount of work and we have only now been able to complete our figures.

We are writing to you fully in connection with these statements and on the subject of our application for continued protection and hope to let you have this letter in the course of the next three days.

THE TINPLATE COMPANY OF INDIA, LIMITED.

List of Enclosures.

Statement	I	. . . . .	Costs—1923.
Statement	II	. . . . .	Costs—1924.
Statement	III	. . . . .	Costs—1925.
Statement	IV	. . . . .	Costs—January/March, 1926.
Note on statements I to IV.			
Statement	V	. . . . .	Costs and selling prices—April 1924 to March 1926.
Statement	VI	. . . . .	Output of Hot Mills.
Statement	VII	. . . . .	Purchase contracts.
Statement	VIII	. . . . .	Sales contracts.
Statement	IX (a), (b), (c) and (d)	. . . . .	Sales, 1923—1926.
Statement	X (a)	. . . . .	Imported price of Welsh Tinplate per ton 1923-1926.
Statement	X (b)	. . . . .	Imported price of United Kingdom and continental sheet bar, 1923-1926.
Statement	XI	. . . . .	Imported stores, 1923-1926.
Statement	XII	. . . . .	Incidence of duty on tin, 1924-1926.
Statement	XIII, XIV, XV and XVI	. . . . .	Labour statements.
Note on training of labour.			
Statement	XVII	. . . . .	Bonus.
Statement	XVIII	. . . . .	Hot Mills production—1923-1926.
Note on statement	XVIII	. . . . .	Effect of climate.
Statement	XIX	. . . . .	Actual costs and production 1923-1925 and estimates for 1926-1936.
Statement	XX	. . . . .	Expenditure on Capital account 1920-1925.

STATEMENT I.

Costs—1923.

Production	Tons.
	9,071
Hot Mill Costs per ton	Rs.
	4,18,400
Intermediate Costs	48,935
Tinhouse and Warehouse Costs	108,989
	<u>5,76,324</u>

STATEMENT II.

Hot Mill Costs.

	1924.		1925.		January to March 1926.	
Production	Tons	20,763	Tons	29,555	Tons	8,863
Steel consumed per ton of black- plate.	"	1.3167	"	1.3256	"	1.4133
Yield of good blackplate		75.95%		75.09%		73.40%
Cost per ton of blackplate	Rs.	296.710	Rs.	233.534	Rs.	192.218
Steel cost f. o. r. works per ton . .	"	127.155	"	107.386	"	84.009
Steel cost delivered to mills per ton.	"	129.800	"	109.756	"	85.975
Steel cost per ton of blackplate . .	"	173.380	"	145.496	"	121.508
Less credit for scrap	"	3.793	"	2.312	"	4.304
	Rs.	169.587		143.184		117.204
Fuel		6.775		4.940		3.903
Labour		65.349		41.084		32.795
Materials for repairs		1.090		1.210		1.189
Power		19.310		16.225		14.473
Rolls, greases, etc.		12.210		12.313		12.379
Shearing & opening		6.640		4.146		3.336
General works expenses		15.749		12.044		8.973
	Rs.	296.710	Rs.	235.146	Rs.	194.252
Credit for spoiled sheets . . . . .		...		1.612	"	2.034
	Rs.	296.710	Rs.	233.534	Rs.	192.218
Cost above metal	Rs.	127.123	Rs.	90.350	Rs.	75.014

STATEMENT III.

Intermediate Costs 1924, 1925 and January to March 1926.

	1924.	1925.	Jan. to March 1926.
Production	Tons 20,763	Tons 29,555	Tons 8,863
Cost of blackplate per ton as per statement II.	Rs. 296.710	Rs. 233.534	Rs. 192.218
Fuel	Rs. 3.945	Rs. 2.524	Rs. 1.883
Labour	„ 9.165	„ 6.015	„ 4.523
Materials for repairs	„ 0.865	„ 0.939	„ 0.945
Power	„ 3.233	„ 2.893	„ 2.383
Acid	„ 5.779	„ 6.128	„ 5.727
Rolls, greases, etc.	„ 2.070	„ 2.292	„ 1.678
Annealing box covers and bottoms.	„ 2.703	„ 4.208	„ 4.134
General works expenses	„ 2.609	„ 2.122	„ 1.307
Debit for spoiled sheets	Nil	„ .782	„ 0.707
	Rs. 327.080	Rs. 261.427	Rs. 215.805
Cost above metal	„ 30.370	„ 27.893	„ 23.597

STATEMENT IV.

Tinhouse and Warehouse.

	1924	1925	Jan. to March 1926.
Production	Tons 20,763	Tons 29,555	Tons 8,863
Cost of tinplate per ton	Rs. 458·927	Rs. 380·999	Rs. 313,816
Cost of tin per ton	„ 3·898	„ 3·988	„ 4·365
Tin consumed per ton of tinplate	lbs. 52·65	lbs. 48·94	lbs. 41·34
Cost of tin per ton of tinplate .	Rs. 91·540	Rs. 87·025	Rs. 80·560
Less credit for scrap	15·285	15·490	19·922
	Rs. 76·255	71·535	60·638
Palm Oil	5·485	5·007	4·533
Acid	2·685	1·407	0·413
Zinc Chloride	1·584	2·181	1·817
Fuel	1·661	1·177	1·073
Labour	15·436	11·595	8·729
Materials for repairs	3·646	2·252	0·966
Power	0·874	0·957	1·017
Greases, etc.	2·833	1·984	1·565
Packing and despatching	13·026	15·618	12·788
General works expenses	7·962	5·782	4·472
Debit for spoiled sheets	Nil	0·077	...
	Rs. 131·847	119·572	98·011
Cost of blackplate per ton as per statement III.	„ 327·080	261·427	215·805
	Rs. 459·927	380·999	313·816
Cost above metal	55·592	48·037	37·473
Total cost above metal	213·085	166·280	135·974

Note on Statements I—IV—Costs.

Year 1923.—We have given the totals only for the three stages of manufacture as during the year 1923 our costs statements were mainly experimental and detailed comparison with following years would be misleading. The rolling of blackplate was carried out in the Hot Mills throughout the year but the intermediate and finishing departments did not commence work until May.

Hot Mill costs.—The consumption of steel per ton of blackplate has increased progressively from 1924 to 1926 and the yield of good blackplate has correspondingly decreased. This is due (1) to the effort to increase production resulting in poorer mill practice and (2) to the absence during the latter half of 1925 and the first quarter of 1926 of about $\frac{1}{3}$ rd of our covenanted labour on leave. Against this is to be set the fall in labour costs from Rs. 65·349 per ton in 1924 to Rs. 32·795 in 1926. Scrap has been credited at varying rates per ton approximating as nearly as possible to the actual sale value realised, the rate for the past year having been Rs. 20 per ton. The credit in 1924 includes what is shown in 1925 and 1926 as "Credit for spoiled sheets," i.e., plates spoiled in the pickling, annealing, cold rolling and tinning processes. From the credit for scrap we have deducted the cost of scrap baling (Rs. 4 to Rs. 8 per ton) and the loss on scrap in bar cutting. The higher credit in 1926 is due to the large quantity of scrap thrown out as explained above.

Reductions under the heads "Fuel" and "Power" are due partly to decreases in the cost of coal and electricity and partly to increased production. "Rolls, greases, etc.," shows no drop as recent supplies of rolls have proved inferior to those originally purchased and breakages have been more frequent as output increased, especially so since the rolling of greater widths on large rolls has been introduced. Labour costs in the Shearing and Opening Department have fallen considerably in the three years, as also have "General Works expenses," comprising water, machine shop, boilers, etc., and general on costs including administration.

The remainder of the saving (Rs. 52·383 per ton) is due to the fall in the price of steel from Rs. 127·155 per ton in 1924 to Rs. 107·386 in 1925 and Rs. 84 in 1926, so that 50 per cent. of the reduction in the total cost per ton is attributable to steel and 50 per cent. to costs above metal.

Intermediate costs.—All items except "Materials for repairs," "Acid" and "Annealing Box Covers and Bottoms" show considerable improvement. The cost of Acid should be read in conjunction with the figures for the same item in the statements of the Tinhouse and Warehouse costs, as owing to alterations to the tinning machines most of the pickling previously done in the Tinhouse is now performed in the pickling department. The total figures for Acid are:—

	Rs.
1924	8·624
1925	7·535
1926	6·140

The debit for Annealing Box Covers and Bottoms is an estimated allowance which was found to be insufficient and was increased towards the end of 1924. This accounts for the higher figures in 1925 and 1926.

Tinhouse and Warehouse.—The cost of tin per ton has increased each year and is still high in spite of the recent reduction of Rs. 275 per ton in the duty, which does not affect the figures for January/March 1926. A great saving has, however, been effected in the quantity consumed per ton of tinplate, which has fallen from lbs. 52·65 in 1924 to lbs. 41·34 in 1926, equivalent to a saving per ton of Rs. 10·980 in spite of the increased price of tin. The credit for scruff has risen because of the enhanced value of the tin dross recovered from it and because of improvements in the arrangements for recovery. (The credit for January to March 1926 is, however, misleading as it is higher than the average for the year is likely to be.)

The large reduction under "Acid" has been explained above. The quantity of Zinc Chloride consumed was much greater in the later half of 1925 than previously but has since fallen, though not yet to the level of 1924. Very considerable savings have been effected in the Tinhouse by alterations to the machines and this is particularly noticeable under the heads of "Labour" and "Materials for repairs." The main item included in "Packing and Despatching" is a debit for the value of sheets used as the top sheets and outer linings for boxes despatched.

STATEMENT V.

Costs and Selling Prices—April 1924 to March 1926.

Period.	Total Production.	Works Cost.	Depreciation.	Interest on Working Capital.	Head Office charges.	Manufacturers' profit.	Fair selling Price.	Total we ought to realise.	Actual price per ton realised.	Total realised.	Loss.
	Tons.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1924 April to December.	15,297	466·95	49·03	14·71	4·16	59·42	594·27	90,90,548	397·26	60,76,886	30,13,662
1925 January to December.	29,555	381·00	25·38	7·61	2·24	30·75	446·98	1,32,10,494	362·70	107,19,598	24,90,896
1926 January to March.	8,863	313·82	21·16	6·35	1·76	25·64	368·73	32,68,054	346·33	30,69,523	1,98,531

368

COMMISSION AND BROKERAGE.

	Total Rs.	Rs. per ton.
1924 April to December	17,877	1·17
1925 January to December	49,016	1·66
1926 January to March	19,662	2·22

Commission and brokerage have been deducted from our "actual price realised" figures and are therefore shown separately. The increase is due to the fact that with an increase in output we have more plates for sale in the open market. No commission is paid on the sales to the Burmah Oil Co., Ltd., or to the Tank Storage Co. (India), Ltd.

OUTPUT—HOT MILLS.

STATEMENT VI.

No. of mills—6.

Dates of commencement of operation—

First mill	18th December 1922.
Second	29th January 1923.
Third*	} 20th August 1923.
Fourth*	
Fifth	14th November 1923.
Sixth	12th December 1923.

* Although these two mills were started on 20th August all four mills were not running simultaneously until 15th October, 1923.

Total or potential capacity.—The mills were designed for a capacity of 28,000 tons of tinplate per annum. Actually, this has been exceeded; in 1925 the output was almost 30,000 tons. In 1926 it is hoped to attain an output of 34,700 tons; in 1927 an output of 35,600 tons; and in 1928 an output of 36,000 tons. This may be taken as the maximum possible output obtainable from the plant as now laid out, with minor additions to equipment.

Total ultimate output, with extensions.—At present, none but minor extensions are contemplated, but the lay-out of the plant was designed so as to admit of its being readily doubled in size, and the total ultimate capacity on this basis would be 72,000 tons—or more than India's present total requirements.

STATEMENT VII.

Purchase contracts.

We have no long term purchase contracts except the following with Messrs. The Tata Iron and Steel Company, Limited.

- (1) *Sheet Bar.*—The terms for this are as you are aware now under discussion and we are not consequently at present in a position to give you figures.
- (2) *Electricity.*—Up till 31st March 1928. The rate is dependent on the price for coal, the present rate being 9-24 pies per unit.

1923. Consumption rate.	1924. Consumption rate.	1925. Consumption rate.	January 1926. Consumption rate.
4,903,400 KWH. 0-0-10 per unit.	9,257,000 KWH. 0-10½ per unit.	11,772,960 KWH. 0-0-10 per unit.	1,110,800 KWH. 0-0-10 per unit.

February to 31st May 1926.

Consumption.	Rate.
4,340,000 KWH.	0-0-9-24 per unit.

Water.—We obtain our supplies of water from Messrs. The Tata Iron and Steel Company, Limited but have no contract yet signed.

1923.	1924.	1925.	January to May 1926.
During this year we paid a fixed rate of Rs. 1,150 per mensem as our consumption was below the contract minimum.	Up till June we paid the minimum rate. For the remainder of the year figures were 78,105,700 gallons at 5.25 annas per thousand gallons.	224,207,900 gallons at 5.25 annas per thousand gallons.	83,181,400 gallons at 5.25 annas per thousand gallons.

Acid.—We obtain our Sulphuric Acid from Messrs. The Tata Iron and Steel Company at their Works cost *plus* 10 per cent. Supplies have only been made to us since March 1925. Previously we purchased in the open market and still have to purchase part of our requirements elsewhere until 30th June 1926. Full supplies are available from the Tata Iron and Steel Company from this date.

1925.	1926.
1,409 tons. Rs. 85 per ton.	780 tons at Rs. 85 to 17th May 1926. 87 „ at Rs. 80 to 31st May 1926.

STATEMENT VIII.

Sales contracts.

We have no long term sale contracts except with Messrs. The Burmah Oil Company, Limited, to whom we sell their full requirements at a rate equivalent to an average price of Welsh plates, delivered f.o.r. Calcutta. This average is calculated each calendar year. Our statements detailing sales for each year will give full particulars of these sales.

STATEMENT IX (a).

Sales—1923-1926—Primes.

Year	The Burmah Oil Co., Ld.		The Tank Storage Co. (India), Ld.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
1923	6,717	Rs. 439.17	...	...	6,717	439.17
1924	15,949	427.78	...	...	15,949	427.78
1925	23,474	382.13	27	352.30	23,501	382.09
1926—Jan.—May .	10,331	389.09	211	397.71	10,542	389.26
Total*	56,471	403.08†	238	392.56	56,709	402.86

*108 lb. plates (30 gauge). †152-154 lb. plates (27 gauge plates).

STATEMENT IX (b).

Sales—1923-1926—Unassorted.

Year.	*Tea packers and biscuit manufacturers.		† Dealers.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
		Rs.		Rs.		Rs.
1923 . . . . .	...	...	...	...	...	...
1924 . . . . .	...	...	...	...	...	...
1925	308	371.55	178	297.34	484	344.26
1926—January—May .	342	371.62	279	300.05	621	339.47
Total	648	371.59	457	298.99	1,105	341.56

* Messrs. Lipton Ltd.
 „ Brooke Bond (India) Ltd.
 „ The Britannia Biscuit Co., Ltd. } 90 lbs. plates.

† We have supplied 90 lbs. plates and 136 lbs. plates.

STATEMENT IX (c).

Sales—1923-1926—Wasters.

Year.	The Burmah Oil Co., Ltd.		The Tank Storage Co., (India) Ltd.		Dealers.		Export.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
		Rs.		Rs.		Rs.		Rs.		Rs.
1923 . . . . .	...	...	...	...	553	334-15	...	...	553	334-15
1924 . . . . .	...	...	...	...	2,997	314-86	...	...	2,997	314-86
1925	2,226	296-00	9	327-12	3,486	283-82	290	283-47	6,011	288-38
1926—January—May	472	262-95*	36	380-45	1,717	294-17	...	...	2,227	298-00
	2,698	290-18	47	370-23	8,753	299-66	290	283-47	11,788	299-25

* Provisional price subject to future adjustment.

Sales to dealers include large deliveries made to various Tin making Factories by dealers who have the sheets converted into Ghee and Vegetable Oil tins. We are supplying indirectly the Tata Oil Mill, Cochin, the Jallo Resin Factory, Lahore and many smaller Packing Factories. All these are 108 lb. (30 gauge plates).

STATEMENT—IX (d).

Sales—1923-1926—All qualities.

Year.	Primes.		Unassorted.		Wasters.		Total.	
	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.	Tons.	Price per ton.
1923	6,717	Rs. 489·17	...	Rs. ...	553	Rs. 334·15	7,270	Rs. 431·18
1924	15,949	427·78	...	...	2,997	314·86	18,946	409·92
1925	23,501	382·09	484	344·26	6,011	288·38	29,996	362·70
1926—January to May .	10,542	389·26	621	339·47	2,227	298·90*	13,390	370·43
	56,709	402·86	1,105	341·56	11,788	299·25	69,602	384·48

* This average price is inflated owing to our not having sold a large portion of our Waster production during January, May.—These have since been disposed of (in June) to the Burmah Oil Co., Ltd.

STATEMENT X (a).

Imported Price of Welsh Tinplate per ton.

Period.	F. o. b. S. Wales.	C. i. f. Calcutta.	Landing Charges.
1923—	£ s. d.	£ s. d.	Rs. A. P.
January	22 18 3	25 5 11	} 2 6 0
February	23 8 5	25 16 1	
March	25 7 4	27 15 0	
April	27 9 7	29 17 3	
May	26 4 3	28 11 11	
June	25 9 0	27 16 8	
July	25 8 2	27 15 10	
August	25 8 2	27 15 10	
September	25 8 2	27 15 10	
October	25 8 2	27 15 10	
November	25 9 0	27 16 8	
December	25 15 9	27 3 5	
Average for 1923	25 6 2	27 13 10	
1924—			
January	26 7 7	28 13 7	} 2 8 0
February	26 12 8	28 18 8	
March	27 5 4	29 11 4	
April	26 13 7	28 19 7	
May	26 11 0	26 17 0	
June	25 0 7	27 6 7	
July	24 19 8	27 5 8	
August	25 0 7	27 6 7	
September	25 12 5	27 18 5	
October	25 13 3	27 19 3	
November	25 13 3	27 19 3	
December	25 10 8	27 16 8	
Average for 1924	25 18 4½	28 4 4½	

STATEMENT X(a)—*contd.**Imported Price of Welsh Tinplate per ton.*

Period.	F. o. b. S. Wales.	C. i. f. Calcutta.	Landing Charges.
1925—	£ s. d.	£ s. d.	Rs. A. P.
January	25 10 8	27 16 3	} 2 8 0
February	25 5 7	27 11 2	
March	24 9 7	26 15 2	
April	24 8 8	26 9 3	
May	23 5 0	25 10 7	
June	22 1 5	24 7 0	} 2 12 0
July	21 6 2	23 11 9	
August	21 2 9	23 8 4	
September	21 9 6	23 15 1	
October	21 17 2	24 2 9	
November	22 2 3	24 7 10	
December	22 3 1	24 8 8	
Average for 1925	22 18 1	25 3 8	
1926—			
January	21 12 1	23 17 7	} 2 12 0
February	21 12 1	23 17 7	
March	21 12 1	23 17 7	
April	21 13 1	23 17 7	
May	21 7 10	23 13 4	
Average for January—May	21 11 3	23 16 9	

STATEMENT X(b).

Imported price of U. K. and Continental Sheet Bars.

Period.	F. o. b. Price per ton.	
	U. K.	Continental.
<i>1923.</i>		
1st Quarter	£ s. d. 7 15 4 8	£ s. d. 6 9 9
2nd „	9 3 0	7 7 11
3rd „	8 15 0	7 8 1
4th „	8 13 3	6 18 10
Average for 1923	8 11 8	7 1 1-75
<i>1924.</i>		
1st Quarter	8 11 3	6 10 3
2nd „	8 9 2	7 4 11
3rd „	8 4 5	6 10 0
4th „	8 2 8	5 19 9
Average for 1924	8 6 10-5	6 11 2-75
<i>1925.</i>		
1st Quarter	7 15 7	5 17 5
2nd „	6 14 7	5 15 0
3rd „	6 8 9	5 5 0
4th „	6 4 3	5 0 8
Average for 1925	6 15 9-5	5 9 6-25
<i>1926.</i>		
1st Quarter	6 3 3	5 3 3

Present freight and landing charges per ton.

	U. K.	Continental.
	£ s. d.	£ s. d.
Freight, insurance, etc.	1 1 10	0 19 4
Landing charges	Rs. A. P. 2 12 0	Rs. A. P. 2 12 0

(We have not got particulars of freight rates in 1923 and 1924.)

STATEMENT XI.

Quantities of different kinds of raw materials required by the Company annually for the manufacture of Tinplate with an estimate of Customs Duty paid on Imported articles.

Material.	Quantity Cost C. I. F. Calcutta			Import Duty.		Quantity Cost C. I. F. Calcutta			Import Duty.	
	No. Unit.	Per Unit.	Total.	Rate.	Amount.	No. Unit.	Per Unit.	Total.	Rate.	Amount.
	1923.			Per cent.	Rs.	1924.			Per cent.	Rs.
Palm Oil	Tons 73	Rs. 710	Rs. 51,698		7,754	Tons 177	Rs. 728	Rs. 1,28,034	15	Rs. 20,709
Pink Meal	83	60	4,980	15	747	350	54	19,141	15	2,871
Zinc Chloride	37	358	13,256	15	1,988	80	443	35,327	15	5,299
Hot Neck Grease	40	423	16,920	15	2,530	120	344	41,337	15	6,200
Gear Grease	4	300	1,202	15	180	30	339	6,708	15	1,019
Cold Neck Grease	33	466	15,381	15	2,307	30	441	13,246	15	1,982
Carborandum Blocks	2,167 pcs.	...	5,800	15	870	3,131 pcs.	...	10,087	15	1,512
Tanned Fleeces	518 "	...	3,964	15	594	1,882 "	...	14,288	15	2,143
Brasses . . . . .	...	...	...	...	...	607 "	...	1,45,981	2½	3,642
			1925.					Up to 31st May 1926.		
Palm Oil	196	663	1,27,093	15	19,083	86	598	51,350	15	7,687
Pink Meal	400	47	18,722	15	2,808	100	47	4,637	15	696
Zinc Chloride	185	393	73,611	15	10,990	30	308	7,163	15	1,074
Hot Neck Grease	245	288	70,702	15	10,605	53	281	14,633	15	2,195
Gear Grease	11	301	3,311	15	497	6	302	1,812	15	270
Cold Neck Grease . . . . .	...	...	...	...	...	...	...	...	...	...
Carborandum Blocks	2,150 pcs.	...	6,410	15	960	1,250 pcs.	...	3,288	15	493
Tanned Fleeces	2,121 "	...	17,143	15	2,571	1,680 "	...	12,215	15	1,853
Brasses	264 "	...	47,947	2½	1,199	226 "	...	32,047	2½	801

377

STATEMENT XII.

Incidence of duty on tin per ton of tinplate.

Period.	Duty on tin per ton.	Tin consumed per ton of tinplate.	Incidence of duty per ton of tinplate.
	Rs.	lbs.	Rs.
1924	450	52·65	10·58
1925	525	48·94	11·47
1926 January, February	555	41·34	10·24
1926 March	250	41·34	4·61

LABOUR STATEMENT NO. XIII.

Covenanted and Uncovenanted Employees (Direct Labour).

	1923.		1924.		1925.		1926.	
	Cove- nanted.	Uncove- nanted.	Cove- nanted.	Uncove- nanted.	Cove- nanted.	Uncove- nanted.	Cove- nanted.*	Uncove- nanted.
Bar Yard	1	...	1	32	1	39	1 (1)	32
Hot Mills	56	512	57	665	44	849	36 (32)	646
Millwright	2	...	...	128	...	126	...	141
Roll Turning	1	...	1	...	1	14	1 (1)	20
Shearing and Opening	2	157	2	225	2	209	2 (1)	190
S. B. Press . . . . .	...	...	...	94	...	56	...	58
Pickling	1	29	1	51	2	100	2 (1)	73
Annealing	3	54	3	76	3	102	2 (2)	114
Cold Rolls	2	78	2	78	2	89	2 (1)	81
Tinhouse	12	115	13	214	12	316	10 (9)	280
Warehouse	2	102	2	144	2	160	1 (1)	146
Electrical	1	122	1	124	1	110	1 (1)	96
Maintenance	1	476	1	509	1	257	...	178
Machine Shop . . . . .	...	...	...	...	...	31	...	58
	84	1,640	84	2,540	71	2,460	56 (50)*	2,333

Figures are average Nos. on books per month, taken over whole year.

* Figures in brackets represent actual staff on 31st May, 1926.

STATEMENT XIV.

Production Uncovenanted Labour, (Indirect and Direct) Total Labour and Tonnage per head per annum.

—	Production Tons.	Indirect labour average per month.	Direct labour average per month.		Total Labour.	Tonnage per head.
			Un-covenanted.	Covenanted.		
1923 . . .	9,071	766	1,640	84	2,490	3.64
1924 . . .	20,768	532	2,400	84	3,156	6.58
1925 . . .	29,555	470	2,460	71	3,001	9.85
1926 . . .	14,557	462	2,323	58	2,843	6.12*
						(5 months ended 31st May 1926).

*Figures for the full year, if this average is maintained, will be 12.29.

STATEMENT XV.

Total wages of Covenanted and Uncovenanted Employees and Wages Cost per ton.

—	Production Tons.	Indirect Un-covenanted labour.	Direct labour.		Total Labour.	Cost per ton.
			Un-covenanted.	Covenanted.		
1923 . . .	9,071	2,50,471	6,80,685	6,65,878	13,97,034	176.06
1924 . . .	20,768	1,82,093	10,34,374	9,57,570	21,75,037	104.76
1925 . . .	29,555	1,52,854	10,27,971	9,05,297	20,85,922	70.58
1926 . . .	14,557	70,506	4,29,228	3,68,059	8,62,793	59.27
						(5 months ended 31st May 1926).

STATEMENT XVI.

Number of Covenanted and Uncovenanted Employees.

Year.	Covenanted Employees.	Uncovenanted Employees.
1923	84	1,640
1924	84	2,540
1925	71	2,460
1926	58 (50)*	2,323

*The figure in brackets represents actual staff on 31st May 1926.

Note on training of labour.

In every Department of the Works, Indian labour is being trained with a view to reducing the number of covenanted hands. The measure of our progress to date is shown by our Statements giving the numbers of covenanted hands originally employed, compared with the number working to-day.

The replacement of covenanted hands may be by direct substitution, as in Departments like the Shearing and Opening, Pickling, Annealing and Warehouse, where a local hand takes the place of any covenanted man leaving, or going on furlough: or it may be by dilution, as in the Hot Mills and Tinhouse. Thus, whereas a crew of 56 men was originally brought from Wales to man one Hot Mill, no bigger number was used to man and control six Hot Mills, and the number has since been greatly reduced. At the same time, the tonnage rose from a little over 9,000 tons in 1923 to almost 30,000 tons in 1925.

We have no Indian in the Hot Mills capable of replacing an expert Welshman in charge of a mill, and we cannot expect to have one for many years. Indians of all creeds are doing the manual work in each "position" on the mills; but the judgment of temperature of the furnaces and of the steel, and a knowledge of the correct regulation of the rolls to suit different conditions of temperature and gauge, are things which can be learnt only by practical experience. Similarly, while a novice can soon learn to tend a tinning Machine, it takes an expert to control the temperature of the tin pot.

The Welsh tinplate trade has been fighting against our being aided to establish the industry in India, on the ground that we cannot make a tinplate worker within fifteen or twenty years. They have been proved quite wrong, as we have made tinplate workers, and many of them, within three years; but if they mean that it will take fifteen years for an Indian to learn how to superintend a mill, they may be right. Indeed, there are few technical industries in India, or in any country, where the technical operation is not directed by an expert, and there is no way to become expert in rolling steel except by years of experience.

Our method of training labour is to pick out likely men and to put them in charge of some part of the operation. In the Hot Mills the best men are appointed as Instructors, to learn by showing the rest of the crew how to do the work. In the tinhouse the best men are put in charge of one or more tinning machines, the covenanted hands acting as supervisors. In the intermediate Departments there are probationers or assistants learning the supervising work, under their Superintendent. In the Shearing and Opening, Pickling, and Annealing Departments, an Indian is taking a shift by himself.

Outside of the process departments, we have no covenanted Superintendents. The Time Office, Stores, Town Motor, Medical, Drawing Office, Watch and Ward, Machine Shop, locomotive and Traffic Departments are all superintended by uncovenanted hands.

STATEMENT XVII.*Bonus.*

Outside the Hot Mills, a flat bonus rate of 35 per cent. of salary applies to all covenanted employees.

In the Hot Mills, bonus is based on production, different rates being paid to Rollers, Heaters and Roughers, the payment being made on each box produced above a certain limit. The original limit was 105 boxes, and a Roller was paid:—

Rs. 0-9-0	per box for each box between 106 and 125.
Rs. 0-10-0	Do. 126 and 140.
Rs. 0-11-0	Do. over 141 boxes.

Subsequently, the bonus rate was reduced by increasing the box limit to 125, and paying a flat rate of Re. 0-9-0 only per box above that limit. The corresponding rate for Heaters and Roughers is Re. 0-8-11 per box. This is the scale in force now. The following are the percentages of salaries obtained during 1925:—

—	Salary-	Per cent.	Bonus	TOTAL
	Rs.		Rs.	Rs.
Rollers	785	42.73	335	1,120
Heaters and Roughers	600	43.23	260	860

STATEMENT XVIII.
Hot Mills Production.

	1923.	1924.	1925.	1926.
January	6,931	42,728	57,196	66,632
February	12,337	49,443	59,207	58,236
March	17,485	31,199	61,748	69,088
April	11,751	32,398	56,446	61,172
May	12,064	33,879	48,790	61,678
June	9,931	16,440	30,049	...
July	10,321	55,273	59,205	...
August	9,907	42,562	51,466	...
September	27,405	34,272	50,878	...
October	27,850	34,433	61,397	...
November	33,129	24,710	55,539	...
December	43,330	44,997	47,728	...

NOTE ON STATEMENT XVIII.

Effect of climatic conditions on output.

We enclose a Statement No. XVIII showing the figures of the number of boxes rolled in the Hot Mill since our Works have been in operation from which you will note the falling off during the hot months of the year.

High maximum temperatures prevail from about March to June, and high minimum temperatures prevail from April to September, all inclusive. A high maximum combined with a low minimum, as in March, does not cause excessive discomfort, and certainly not as much as is caused by a high mini-

mum combined with a moderately high maximum, as during the Monsoon months. It can therefore be said generally that the months of April to September are unfavourable.

Beginning from March or April, production falls until July, during which month, with the relief of the break of the Rains, production usually improves considerably, and drops again in August and September. Taking the year as a whole, the months of April to September inclusive are unfavourable, and the months of October to March are favourable. Leaving the year 1923 out of consideration as the year in which mills were being successively started up, the half-yearly figures are instructive, viz.—

	1924.	1925.
Jan., Feb., Mar., Oct., Nov., Dec.	2,27,510	3,42,815
April, May, June, July, Aug. Sept.	2,14,824	2,96,834
TOTAL	4,42,334	6,39,649

STATEMENT XIX.

Production and costs from 1923 to 1925 and estimated production and works costs up to 1936.

Year.	Production Tons.	Works cost per ton. Rs.	Cost of steel.
1923	9,071	576	...
1924	20,763	459	127
1925	29,555	381	107*
1926	34,700	316	84
1927	35,600	305	83
1928	36,100	300	83
1929	36,100	296	83
1930	36,100	293	83
1931	36,100	290	83
1932	36,100	288	83
1933	36,100	285	83
1934	36,100	284	83
1935	36,100	283	83
1936	36,100	282	83

* This figure differs from that of our application of 5th May 1926. This difference is due to adjustments made in our cost figures in our final accounts for the year.

STATEMENT XX.

Yearly Expenditure on Capital Account 1920 to 1925.

	Dollar Expenditure	Sterling Expenditure	Rupee Expenditure
	\$	£	Rs.
1920.			
American Purchases of Machinery & Steel Work—			
Cost f.o.r. American Port	286,595	...	...
Freight and Sundries	28,849	...	...
1921.			
American Purchases of Machinery & Steel Work—			
Cost f.o.r. American Port	1,007,571	...	...
Freight and Sundries	141,022	...	...
Sterling Purchases of Machinery—			
Cost f.o.r. U.K. Port . . . . .	...	55,376	...
Freight and Sundries . . . . .	...	2,391	...
Rupee Expenditure—			
Steel Erection . . . . .	...	...	662
Machinery . . . . .	...	...	1,57,962
Brickwork and Foundations . . . . .	...	...	6,22,313
Sundry Capital Accounts . . . . .	...	...	4,96,051
1922.			
American Purchases of Machinery & Steel Work—			
Cost f.o.r. American Port	614,116	...	...
Freight and Sundries	83,600	...	...
Rupee Expenditure—			
Steel Erection . . . . .	...	...	1,35,454
Machinery . . . . .	...	...	4,67,547
Brickwork and Foundations . . . . .	...	...	6,61,583
Sundry Capital Accounts . . . . .	...	...	2,27,389
1923.			
American Purchases of Machinery & Steel Work—			
Cost f.o.r. American Port	73,666	...	...
Freight and Sundries	9,423	...	...
Sterling Purchases of Machinery—			
Cost f.o.r. U.K. Port . . . . .	...	2,657	...
Freight and Sundries . . . . .	...	218	...
Rupee Expenditure—			
Machinery . . . . .	...	...	5,91,011
Brickwork and Foundations . . . . .	...	...	6,70,804
Sundry Capital Accounts . . . . .	...	...	1,56,014
1924.			
Rupee Expenditure—			
Machinery . . . . .	...	...	53,889
Brickwork and Foundations . . . . .	...	...	68,635
Sundry Capital Accounts . . . . .	...	...	27,111
1925.			
Rupee Expenditure—			
Machinery . . . . .	...	...	1,12,015
Brickwork and Foundations . . . . .	...	...	1,562
Sundry Capital Accounts . . . . .	...	...	23,456
Expenditure on Interest, Loans, Brokerage, Travelling and Sundry Expense Accounts during the period of construction, charged to capital	\$2,194,542	£60,642	R44,73,458
	\$162,956	£55,949	...
	\$2,357,498	R116,591	R44,73,458
	R83,67,936	R16,41,021	R44,73,458
	\$2,456,936	R87,20,891	Total Rs. 1,44,82,415
NOTE.—Dollar Expenditure shown on statements III (b) and III (c) submitted on 20-5-1926 was but included cost of materials purchased with original plant, subsequently, taken into stores for operation use (e.g. rolls)	\$99,438	R3,52,955	
	\$2,357,498	R 83,67,936	

Letter, dated the 5th July, 1926 .

The Tinsplate Industry.

In sending herewith the statements for which you have asked, we take leave to give you a resumé of the circumstances under which our Plant was started, of our progress to date, and of our hopes for the future.

The idea of starting a Tinsplate Industry in India was mooted towards the end of the War, as a result of the acute shortage of tinsplate experienced in India at that time and to make India in the future independent of outside countries for a very necessary article of every day use and military necessity which in times of stress such as the war or strikes might not be available. It should also be borne in mind that with the agricultural development of India tinsplates will be required to an increasing extent for the manufacture of containers. The industry also gave an outlet for a large quantity of steel from the Tata Iron and Steel Company's Greater Extensions.

Tinsplate is used in India, as in every other country to-day, for making containers, particularly for perishable goods, as well as for making articles of general utility such as lamps, boxes and the like. Consisting as it does of a thin sheet of steel, coated evenly with a fine coating of the purest tin obtainable, it gives maximum service at a minimum cost, the steel being for strength, the tin for preventing the steel from rusting.

The biggest use to which tinsplate is put is the tinning of petroleum and its products, viz., kerosene oil, petrol, lubricating oils and greases, and it has been estimated that one-third of the total tinsplate production throughout the world is used for this purpose. In India the proportion is probably four-fifths, of which all but a fraction goes to make the four-gallon kerosene tin, India's universal container. Upwards of forty million kerosene tins are distributed annually throughout India by the Oil Companies, filled on their first journey upcountry with kerosene and thereafter emptied and used as a container for vegetable oils, ghee, molasses and other products, to finish up in the hands of the tinsmith in the bazaar or as the roof or the wall of a house.

It was therefore natural that the first tinsplate factory in India should concentrate principally on the two sizes of 30 gauge tinsplate. "30 Gauge" tinsplate required by the oil trade, which had the additional advantage of being two of the sizes most in demand by bazaar dealers.

Once the factory was established, and production began to outstrip the demands for 30 gauge "Oil Size" plates, the demands of other users could be met, and to-day Indian tinsplate is being used as well by the tea packers, biscuit manufacturers and others. The familiar 2-gallon petrol tin is also to-day being made exclusively from "Golmuri" tinsplate.

The Factory at Golmuri took two years to build, and occupies 40 acres of land that previously had been virgin jungle. The buildings themselves comprise 7½ acres. Adjacent was laid out a village for the workmen, and about a mile away a town for the accommodation of the necessary staff.

This staff consisted principally of close on a hundred expert tinsplate workers from Wales, the Home of the industry and the parent of practically every successful tinsplate plant that is operating to-day. It is noteworthy that although steel is made in very large quantities in all the highly industrialised countries of the world although, in fact, "highly industrialised" is almost synonymous with the manufacture of steel—tinsplate is largely manufactured only in two,

vis., the United States of America and Great Britain, and in Great Britain its manufacture is confined to only a small area—South Wales. There are tinplate works in Germany, in France and in Italy, but all these countries import largely from Wales.

The reason underlying this is the inherent difficulty of the process of rolling steel into thin sheets. Unlike most of the steel processes, progressive mechanical development has so far been found impossible, and intrinsically the process remains the same as it did when it was founded a century and a half ago in Wales. Equipment has been improved (particularly during the last few years in America), but human skill and experience remain the governing factors; no electrical or mechanical device has been found that will replace the brains of the man superintending the rolls and the furnaces. The Welshman serves many years of apprenticeship before he is even allowed to roll a pack of "blackplate," and although it has been proved in India that totally unskilled labour can, with the proper equipment, be taught the mere manual process, it will be long before Welsh supervision can be dispensed with entirely.

The human factor.

With unlimited supplies of skilled labour at its disposal, the Welsh trade has never needed, nor tried, to develop mechanical devices which would lessen the requisite skill. It is fortunate for India that America did develop these mechanical appliances, just because she also had no reserves of skilled labour on which to draw, or the operation of a tinplate plant in India would have been impossible. Fortunately for us the Americans also had to face and overcome a difficulty unknown in Wales, viz., high temperatures; and it has been by copying and improving on their methods of combating climatic disabilities that we have been able to operate throughout the Indian hot weather.

American equipment.

The first sheet of steel less than $\frac{1}{8}$ " in thickness was rolled in India in the Golmuri factory on 18th December 1922, when the first of our six mills started to operate with a full crew of 54 Welshmen and two Foremen. Before the second mill was started up, over a hundred Indians were in training, and the process was continued as each of the remaining four mills were started up, with the result that by the 12th December 1923, when the sixth mill was put into operation, enough Indian workmen had been sufficiently trained for the manual process to enable all six mills to be operated by them, the Welsh supervision being now reduced to three men per mill per shift.

The start.

It had been a matter for considerable speculation as to how many novices would be required to replace each skilled man, and how far the bodily strength of the individual Indian workman would compare with that of men whose physique had been developed by years of this manual labour—and picked men at that. The experience of other industries was adduced to show that we should need three or four Indians to replace each Welshman, but it was not long before we found that, on the average, only two were required. There are forty Indians to fill these positions to-day, this being on the basis of two men for each position, plus a few spares to take the places of men absent. With crews on this basis, we have attained an average output per mill equal to 80 or 90 per cent. of the output of similar mills in the United States.

The volume of output.

The year 1924 was devoted to training up the new crews on a progressively increasing output, and by the end of the year we could look back to having produced over 20,000 tons of plate of excellent quality. Practical results had so far outstripped estimates that we used all the steel that had been contracted for or could be obtained, and yet had to work short time for most of the year.

If sufficient steel supplies had been available there is no doubt that the 1924 output would have been largely increased. Larger supplies of steel were available under our 1925 contract, although still not sufficiently large for our needs, and we had to contract at higher prices for 8,000 tons extra steel from The

1925.
Tata Iron and Steel Company, Limited, and over and above that had to buy from Europe 4,500 tons more to make good the gap which the local Steel Works could not fill. The result was that we turned out almost 30,000 tons of finished tinplate, as against the 28,000 tons which our existing factory was

designed to produce. As will be seen from the statements submitted to the Board, we hope to reach this year a production of almost 35,000 tons, with slight increases during the following two years. We cannot look to an output of more than 36,000 tons with our present plant, so that it will be seen that this year we hope to be approaching the maximum possible output both of our Hot Mills and of our Finishing Departments.

The actual rolling of steel into thin sheets being the process most calling for trained manual effort, difficulties in the finishing processes were not anticipated. There were experts to supervise

The finishing process. the pickling of the sheets, i.e., for cleaning them with sulphuric acid; their annealing (or softening) to give back the original elasticity to the steel that is impaired in the process of rolling; their "cold rolling," that gives them a finely polished surface in preparation for their coating with tin; and the tinning process proper.

In fact, however, these difficulties had been underestimated. The effect of a tropical climate on the process itself had not been sufficiently foreseen, and many unexpected troubles caused by the heat had to be successively overcome. For example, it was found that in the hot weather—when the shade-temperature rises to as high as 120° F.—the process of cooling the plates after annealing took very much longer than had been anticipated, and many more annealing boxes and stands had to be installed. Again, and more harmfully, the high temperature of the water required for pickling and tinning was

Climatic disabilities. found to cause the plates to dry almost immediately they were taken out of the bath, the result being "Water Stains" or large dry patches that would not properly tin and that ruined the plates following them in the tinning machine, by carrying zinc chloride through to the tin. This difficulty was

The tinning process. eventually overcome by the lavish use of water sprays. Again, our palm oil, which is a necessary adjunct to the tinning process, was found to deteriorate in the heat, and in 1924 ruined the quality of our plates for weeks, until extra fresh supplies could be ordered by cable and shipped from England.

Similar difficulties still arise to-day and have to be surmounted, but each year the ill effects of a tropical climate are progressively less, although doubtless the high temperatures during six months of the year will always affect the volume of output. To sustain a high rate of production under the conditions obtaining, the number of pickling machines has had to be doubled since operations started, the cold rolls have been increased by 20 per cent., and the tinhouse has had to be entirely remodelled. The result, however, is a plate whose appearance we believe to be comparable with any.

The past three years may be said to have been a period of (a) training of labour, (b) reduction of imported staff and (c) overcoming of climatic disabilities, accompanied by the increase of output necessary to reduce costs and thus to enable this industry to fulfil the Tariff Board's proviso that we must eventually be able to meet world competition without protection.

Reduction of costs.

Progress during the period in this respect, as shown by the Statements submitted, is as follows:—

—	1923.	1924.	1925.	JANUARY TO MARCH.
				1926.
Production . . . Tons.	9,071	20,763	29,555	8,863
<i>Costs above metal per ton.</i>				
Hot Mills . . . Rs.	244*	127,123	90,350	75,014
Intermediate . . . "	49*	30,370	27,893	23,587
Tinhouse . . . "	53*	55,592	48,037	37,473
TOTAL . . .	346*	213,085	166,280	135,974

* These are approximate figures only.

The very high cost in 1923 will be understood if it is realised how expensive a matter it is to keep a factory working at one-fourth capacity for a year, but it illuminates the saying in the trade that it takes two or three years to get a tinsplate factory going. The 1923 figures are also of interest as illustrating, by comparison, the great strides that have already been made on a "mass-

production" basis towards the reduction of costs; and will, we hope, go far to show that this industry is worthy of protection.

Any industry in India that asks for protection is met with the criticism that it is already protected by the ocean freight paid by its competitors abroad. So far as this industry is concerned, this geographical protection is

more apparent than real. In our previous evidence before the Tariff Board, we gave figures to illustrate the high cost of essential raw materials that can at present only be obtained from abroad, and we assessed our financial disadvantage in this respect at Rs. 1-8-0 per box, which works out at over Rs. 30 per ton, which is far more than the freight per ton on Welsh tinsplate. In other

words, our geographical advantage in respect of the finished product is offset by our geographical disadvantage in respect of the specialised stores we need in our process. As India develops industrially, subsidiary industries for such processes as ours will doubtless spring up, and thus remove this handicap under which we work. Before that date, however, there is no question but that we will have dispensed with the need for a protective tariff.

It is here to be noted that before tinsplate was ever manufactured in India, a duty on it of Rs. 40 per ton was already in force. The measure of protection given after the industry had started up was Rs. 45 per ton, making a total Customs duty of something between 20 and 25 per cent. on the tariff valuation.

This does not seem a very excessive rate when compared with the standard 15 per cent. of the revenue tariff, and it would be interesting to compare it with the degree of protection deemed necessary at the start by other

countries for this particular industry. We know that America started hers with about 70 per cent. ultimately lowered to 15 per cent.

As things have turned out, the cost of tinsplate to the Indian users has progressively fallen since a protective duty was imposed, the fall in world

prices having more than balanced the incidence of the duty. This of course was not the intention of the Legislature, but it has so happened. Again, it was doubtless not in the minds of the Legislature that other products would be cheapened by the start of a tinsplate industry, but this also has happened; and although it is not of supreme importance, it is noteworthy as an illustration of the indirect advantages of having industries inside a country, instead of outside. We refer to the fact that subsidiary industries in the bazaar are being fed and developed by what may be called the bye-products of this process. Thus, the bazaar tinsmith has available to-day the small pieces of

tinplate that he needs for his work, at a far less cost than he ever had before; the strips that we bundle off and sell, as unsuitable for our direct customers, give him tinplate at a price at which it would never have paid to import from abroad. Similarly, the bazaar now absorbs each year tons of steel sheets which we regard as scrap but for which there are users who could never previously have afforded to import.

The result of starting this industry in India has already shown itself in the saving of a crore of rupees per year that previously went abroad to pay

for foreign tinplate and in the expenditure in India of this sum of money in the form of wages and the like. A large output is necessary for the Factory to operate efficiently, but a large output is already being obtained. The other necessity—a skilled labour force—is being gradually built up. It is surely not undue optimism to anticipate for this industry a steady measure of progress and its ultimate ability to meet world competition on level terms and to supply the bulk of India's requirements at a cost less than the cost of imported plates.

We will now refer briefly to the statements we have submitted. As requested we have given statements of costs for 1923, 1924, 1925 and January/ March 1926, and the statements are divided into three processes, (a) Cost of manufacture of blackplate, (b) Cost of the intermediary process of pickling, annealing and cold rolling and, (c) Cost of tinning, packing and despatching.

We have also sent you a statement giving a comparison of our selling price with Works' cost plus Overhead Charges based on a Capitalisation of Rs. 1,50,00,000 and would refer you in this connection to our letter to you No. T. P.-6145-29 of 24th June. Our present Capital is as you know divided into—

	Rs.
Ordinary Shares	75,00,000
Debentures	1,25,00,000
TOTAL	2,00,00,000

in addition to which we have obtained loans and are in arrears with Debenture interest.

On the presumption that our reduced capital will be divided between Ordinary Shares and Debentures in the same proportion we shall then have the following:—

	Rs.
Ordinary Shares	56,00,000
Debentures	94,00,000
TOTAL	1,50,00,000

Of this amount of Rs. 1½ crores, Block is represented by Rs. 1,20,00,000 and Working Capital by Rs. 30,00,000. This latter figure is based on our balance sheets which show the value of stores, stocks in process, sundry debtors, etc., at about this figure, which is the minimum necessary and may even be too little when our production has reached its maximum.

We have based our Depreciation charge on the figure allowed by you to others, i.e., 6½ per cent. On Working Capital we have taken 7½ per cent. on Debentures 6 per cent. and on Ordinary Share Capital 10 per cent. These latter figures also have already been accepted by you in your consideration of other industries.

These statements show that during the first three months of this year costs have been reduced to Rs. 368-12 per ton, some Rs. 75 per ton less than the 1925 figure. The price realised has included duty at Rs. 60 per ton for two months and Rs. 85 per ton for one month. Until March 1927 and assuming that prices remain unchanged we shall receive a return of Rs. 363 per ton which is Rs. 5 only below our fair selling price.

We show the anticipated results for the future in our Statement No. XIX, and you will note that we expect to reach the maximum production of which the present plant is capable in 1928. In our application to you dated the 5th May 1926 we estimated our production during the current year at 700,000 boxes. When making this estimate we had allowed for a shut-down during June as shut-downs during the hot weather have previously been found necessary, but although production has slowed up the efficiency of the arrangements for keeping the Works cool has avoided the necessity for closing and an outturn of 720,000 boxes should be obtained over the year.

We have shown our costs for this year as slightly higher than for the first three months, as our average monthly outturn will be less: the difference however is slight.

During the years 1927 and 1928 our production should continue to increase and costs show a further fall both on this account, and on account of improved yields. From that date onwards we look to improved working to obtain for us our reduction in costs.

Our yields throughout the Works have improved rapidly, except in the case of steel in the Hot Mills, where improvement has been delayed by various causes. Firstly it was apparent that the quickest way to reduce costs was to increase output, and we have concentrated on this rather than on improvement in yield. Now that this increase in output has been virtually obtained it will be possible to give more attention to the yields; and with increasing experience we are confident that our labour can gradually effect considerable savings and that we shall bring returns down to the level of Works elsewhere.

Then as our Labour Statements No. XIII and XVI show the number of imported hands has been considerably reduced. This reduction in the number of experienced workers necessarily affects results, particularly in the early years of the industry, but here again we look for a gradual improvement in the yield with a steadily diminishing number of "imported" hands.

The question of the extension of the Works to cater for a larger proportion of the requirements of India has not so far been considered fully in view of the unsettled period through which we have been passing. With the assurance of an adequate protection for a period of years during which the Industry may be firmly established and put on a remunerative basis, it would obviously be to the interest of all parties to investigate the possibilities of the extension of the Industry. In the natural order of events it may be expected that the present Works will be extended with, as above, subsidiary plants for supplying the raw materials of the industry such as have been developed in the United Kingdom to cater for the trade and the existence of which in India will necessarily still further reduce the cost of producing Tinsplates.

Examples that can be cited are the refining of palm oil and possibly the cultivation of the West African palm, the local manufacture of rolls, annealing boxes and stands and the specialised tinsplate greases all of which are now imported, also the utilisation of our bye-products such as scrap and tin dross which should give us a better return than we now get by shipping to the United Kingdom or the Continent.

We have under consideration the following capital improvements to the plant but these are designed towards an increase in efficiency and a saving in costs rather than to an increase in production:—

1. A Cupola for the manufacture of small castings.
2. A largely extended Machine Shop.

There are other improvements which must later be taken in hand such as a further train of cold rolls, a second annealing furnace, a filtration plant for the tinfoil and possibly for the pickler, an acid disposal plant and extra cranes, all of which will at some time be necessary if the plant is to be brought up to its maximum efficiency.

We have applied to you for the continuation of the present scale of protection and in our statement No. XIX we show our estimated costs over the coming ten years. We request that the period of protection should be for at least seven years and preferably for ten, since uncertainty as to the future cannot but have an unsettling effect on the industry.

Finally, in considering our application, we would ask you to bear in mind that we are still at a disadvantage in comparison with Tinfoil Works in Wales from the Indian import duty on tin which, although reduced to Rs. 250 per ton, still represents some Rs. 4 to Rs. 5 per ton of tinfoil.

Steel Wire and Wire Nails.

XXI.—Application dealing with the Manufacture of Steel Wire and Wire Nails.

THE INDIAN STEEL WIRE PRODUCTS, LIMITED.

Representation, dated the 11th May 1926.

With reference to the press communiqué of the 16th April 1926, we beg to submit the following for the consideration of the Board.

In July 1925 we submitted a representation regarding the necessity of increasing the rate of protection recommended by the Tariff Board in their first report and sanctioned by the Government and the Central Legislature. A second letter on the same subject submitting figures as desired by the Tariff Board in their letter No. 500, dated the 10th September 1925, was addressed to the Tariff Board on the 25th September 1925.

Our representative, Mr. Capadia, was examined by the Board on the 6th October 1925 and during the course of his examination further information was required by the Board which was supplied by us in our letter, dated the 27th October 1925, whereafter the Board examined our two representatives, Mr. Lalubhai Samaldas and Mr. Walchand Hirachand, on the 29th October 1925.

In both our representations and the oral evidence of our representatives we have made out a case not only for continuing the protection granted under the Steel Industry (Protection) Act for about 4 years but also for increasing the same.

The Report of the Tariff Board on our representation has not yet been issued to the public and in the absence of such report it is very difficult for us to submit any fresh representation as we have already given our reasons for an increase of protection in our previous representations.

We may state here for the information of the Board that we started manufacturing wires and nails from 21st November 1925. We had to order rods from outside India and as that meant delay in beginning the working of the factory we purchased about 450 tons of second-hand rods and wires to start the work of manufacturing wires and wire nails therefrom.

Our first consignment of imported rods arrived on the 20th March 1926 and the manufacturing of wire from these rods was begun on 22nd March 1926. The production of our manufactured goods has increased from about 7 tons with second-hand rods to 15 tons with imported rods.

The management expects to increase this production with one shift to about 18 tons as the workmen get more practice in working the new machinery. The present figure of 15 tons per day works out to 378 tons per month of 25 working days. The Board will observe that our production even at the present low figure, is 25 tons more per month than given as an estimate in our letter of 27th October 1925.

The cost of manufacturing came in February to Rs. 200 per ton for wire and Rs. 274 per ton for nails. The increase of Rs. 44 on the figures given in our representation, i.e., Rs. 230 per ton is to a very great extent due to the duty of Rs. 40 per ton that we have to pay on rods. If that duty is removed as requested by us in our oral evidence, we will be able to manufacture wires and nails at a figure practically equal to that mentioned in that representation and this, we hope, will satisfy the Board that the demand for increased duty that we had made in our representation was fair and reasonable. The Board has had an opportunity of seeing the working of the factory and if they are satisfied that we have made earnest efforts to increase production and reduce costs, we hope they will be pleased to support our request for continuance of protection at the higher scale suggested in our representation of 27th October 1925. If the Board desire further information or to take oral evidence of our representative we shall be glad to meet with the Board's wishes in the matter.

Miscellaneous Letters.

XXII.—Miscellaneous Letters.

CORRESPONDENCE WITH HUKUMCHAND ELECTRIC STEEL WORKS.

Letter, dated 5th May 1926, from the Tariff Board to the Hukumchand Electric Steel Works.

I am directed to state that it is essential to the proper consideration of your representation, dated the 19th April 1926, that the Tariff Board should be furnished with the fullest possible information in regard to your costs. It would be convenient if this were supplied in the manner indicated below which is based on the lines followed by the Board in Chapter V of their First Report on steel in dealing with the costs of producing steel at Jamshedpur. It will be seen from that Chapter that the costs of production fall under the three main heads:—

- I. Works costs.
- II. Overhead charges.
- III. Manufacturer's profit.

The information required in regard to the first two of these is shown in detail below.

I. Works Costs.

These which include all costs incurred at the works in the process of manufacture should be shown as follows:—

Total finished output.	Tons.	Value.
1. Material, <i>e.g.</i> , scrap, refractories, fluxes, Stores, etc.		
Less credit for scrap recovered		
2. Cost above materials—		
Power		
Fuel		
Labour		
Repairs, relining, etc.		
General Works—Supervision—		
(a) European		
(b) Indian		
Nett cost per ton of output		

The information in regard to works costs should be supplied for each official year since the establishment of the works. If the figures cannot conveniently be given for the official year, the calendar year may be used. Copies of your cost sheets in the form in which you keep them may be supplied for each year or half-year as the case may be.

II. Overhead charges.

These should be sub-divided as follows:—

- (a) Depreciation.
- (b) Interest on working capital.
- (c) Head Office charges.

(a) *Depreciations.*—(i) In order to ascertain this, it is necessary that the block value should be fixed. This should be shown in the following form which

would give the amount spent each year since the establishment of the works up-to-date.

Year.	Land.	Buildings.	Plant and machinery.	Micellaneous.	TOTAL.

(ii) The amount of depreciation actually written down year by year, and the rate at which it was calculated should be stated. If the amount written off as depreciation is greater or less than that which you consider reasonable for buildings or plant of this type, the rate which you consider reasonable in normal conditions should be stated.

(iii) The replacement value at the present ruling prices for the whole block should, if possible, be stated under the above headings.

(b) The amount of working capital actually employed should be clearly stated together with the rate of interest which is being paid on it. If the working capital is less than you consider necessary, the amount required and the rate at which it could be procured should be stated. It is essential that the interest paid on this should be distinguished from that paid on the capital invested in the block.

(c) Head Office charges include all expenditure incurred by the Head Office on supervision, management, commission, if any, on sales, etc. The expenditure incurred on each of these items should be separately stated, if possible.

III. Manufacturer's profit.

The rate of return you consider reasonable on capital invested in works of this kind should be stated.

2. *Spring steel.*—As regards your representation concerning spring steel, the Board observe that you estimate the cost of production of ingot steel at Rs. 11 per cwt. The Board would be glad to have details showing the manner in which this has been arrived at as nearly as possible in the form in which you have been asked to show your works costs for steel castings.

The Board would also be glad to have the estimated block value of your proposed rolling mill and its necessary equipment under the same headings as those given in paragraph 1, as also the estimated cost of rolling under the same heads as the works costs.

The Board would also be glad to have the results of the experiments and tests in connection with the manufacture of spring steel mentioned in your representation. In this connexion, will you kindly state the charges per cwt. made by the Ishapore Factory for rolling steel.

3. The first of your specific requests is:

- (a) A bounty of Rs. 10 per cwt. should be granted on steel castings, subject to periodical reduction until it is totally extinguished in about 5 years. The Board would be glad to know the amount of

the bounty you consider should be given in each of the 5 years, your estimated output during each of these years, and the reduction in your costs which you consider can be attained in each year.

- (b) Your second request is for an increased import duty and the grant of a bounty for certain kinds of spring steel and special cast steel, equivalent in all respects to that granted to the Tata Iron and Steel Company, Limited, for structural steel, etc. It is difficult for the Board to deal with a proposal put forward in this form. The Board would be in a much better position to examine your proposals if you were to enumerate all the products you (a) actually manufacture at present, (b) propose to manufacture in the near future, and were to state the amount of bounty or duty you consider required, in a tabular form.

(a) *Articles at present manufactured.*

Name and description of articles.	Annual output.	Present duty.	Proposed bounty or duty.
1			
2			
3			
4			

(b) *Articles which it is proposed to manufacture.*

Name and description of article.	Estimated annual output.	Present duty.	Proposed bounty or duty.
1			
2			
3			
4			

It will then be necessary for you to indicate briefly how you have arrived at the amount of bounty or duty proposed in each case. The c.i.f. price of each imported article which competes with your products should also be furnished, the sources in regard to this information being indicated.

4. I am to state that your representatives will be examined, as desired by you, at Shillong at 10 a.m. on Monday the 17th of May, and that it would be convenient if your reply to this letter (with 6 spare copies) was received by the Board at least four days before that date. Please number the paragraphs of all future written representations you may make to the Board. Reference to particular points or passages become very difficult when the paragraphs of a representation are not numbered.

Letter dated 12th May 1926, from the Hukumchand Electric Steel Works.

We beg to acknowledge, with thanks, receipt of your letter No. 190 of the 5th instant and also of your letter No. 205 of the 7th instant and have pleasure in replying as follows:—

The bulk of the information called for in your letter No. 198 has been supplied in our letter of May 4th. We note, however, the recapitulatory information contained therein in order to put it into the form required by the Board.

STEEL CASTINGS.

YEAR ENDING MARCH 31st, 1925.

Total Finished Output ... Cwts. 13,740.

(1) Works Costs—		Rs.	A.	P.
Materials	} For details see statement "A" attached.	1,39,799	2	6
Scrap				
Refractories				
Fluxes				
Stores, etc.				
Less Scrap Recovered	...	...	6,870	0 0
Nett Total	...	1,32,929	2	6

(2) Cost over Materials—

	Rs.	A.	P.
Power	67,576	7	4
Fuel	13,913	14	3
Repairs and Relining, etc., included in General Works Costs:—			
Labour	1,21,249	10	3
General Works Supervision:—			
European	21,688	3	3
Indian	5,951	10	0
	2,30,379	13	1
Total	3,63,308	15	7
Nett cost per cwt. of output	26	8	6

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(3) <i>Overhead Charges—</i>		Rs.	A.	P.	
(a) Depreciation	...	60,429	11	3	See Statement "C"
(b) Interest on Working Capital.	...	28,188	0	0	" " "D"
(c) Head Office Charges	...	52,614	12	0	" " "E"
Total	...	1,41,232	7	3	
Cost per cwt. of output	...	10	4	5	
Works Cost	...	26	8	6	
Overhead Charges	...	10	4	5	
Total Production Cost	...	36	12	11	

NOTE.—(a) *Depreciation.*—This was shown in our letter to the Board of the 4th instant, calculated at 6½ per cent. as we understood that the Board's considered opinion was that that percentage was correct for a Steel Manufacturing concern. In view of the Board's letter No. 198 of the 5th instant we prefer to take the sums as allowed by our annual accounts as being in our opinion more adequate in view of the large amount of electrical machinery in our concern.

(4) We estimate that the replacement value at the present ruling prices for the whole block would be approximately 60 per cent. of the original value.

(5) *Working Capital.*—This has been shown in detail in Statement "D". There is no fixed working Capital as this is provided by the Proprietors as and when required.

(6) <i>Manufacturers Profit.</i> —On 31st March 1925, we had invested in the business	...	...	Rs.	14,74,904	0	0
Less accumulated loss	...	...	"	2,49,073	0	0
Total	...	...	Rs.	12,25,831	0	0

We consider that on the above amount a return of 12 per cent. can be justified which amounts to

...	...	Rs.	1,47,100	0	0
Less Interest on working Capital	...	"	28,188	0	0

Total	...	Rs.	1,18,912	0	0
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(7) Our production costs for the year ended March 31st, 1926, are almost complete and will be forwarded within a day or two. Otherwise they will be handed to the Board when our representatives present themselves for oral examination on the 17th instant.

(8) *Bounty asked for on Steel Castings.*—We have asked for a bounty of Rs. 10 per cwt. on Steel Castings subject to periodical reduction until it is altogether extinguished. The reduction in costs which can be attained each year depends mainly on output and if our output continues to increase at the same rate as for the past 4 years, we should be producing about 3 times our present tonnage at the end of 5 years. If this can be accomplished, we anticipate a reduction in costs of Rs. 2 per cwt. per year and possibly more. We therefore suggest that the bounty should be reduced by Rs. 2 per year until it is finally extinguished. Alternatively we suggest that our costs of production shall be periodically examined by the Board and the amount of the bounty fixed for a given period according to the reduction in costs which can be shown.

SPRING STEEL.

1. (a) Our estimated cost of production has been shown in detail on page 3 of our letter of May 4th and for Liquid Steel in our production cost sheets for year ending March 31st, 1925.

(b) The block value of the rolling Mill required by us is difficult to estimate. The Mill forms part of the entire plant and equipment of Messrs.

Indian Steels, Ltd., a firm which went into liquidation some time ago. The entire assets of this concern were acquired by us practically at scrap value and in consequence of advantageous sales of that portion of the plant which we do not require, we are in a position to hand over the Rolling Mills to our Steel works at a purely nominal price. The cost of erecting the buildings, furnaces and rolling mills, etc., is estimated at Rs. 2,00,000 and this we propose to take as the Block Value of the plant.

- (c) The Mill we have acquired is of the same size and type as that being operated at Ishapore and we anticipate that our costs will approximate very closely the Ishapore costs. Materials, Labour, Power, Supervision, etc., should be approximately the same as the Mills are situated in the same district within a few miles of each other.
2. (a) The results of all the tests carried out in connection with Spring Steel Manufacture are being forwarded to you under separate cover.
- (b) The Ishapore charges for rolling were Rs. 3-4 per cwt. for Light Sections and Rs. 3 for Heavy Sections. The charges were fixed after a special test had been made at the factory during which careful account was kept of expenditure of Power, Fuel, Labour, Supervision, plus overhead charges, etc. The test was carried out to determine what their production costs would be if they should require to produce Spring Steel on a commercial basis. We supplied to the Superintendent of the factory for a detailed rolling cost sheet, but he replied that he was unable to furnish this without the authority of the Government of India. No doubt he would be ready to place the information at the disposal of the Board if asked officially by them to do so.

3. Spring Steel Sections at present Manufactured by us.

Description.	Annual output.	Present duty.	Proposed Duty or Bounty.
		Per cent.	Per cent.
(a) Flat Steel of all sizes for Laminated Springs. From 5" wide down to $\frac{1}{2}$ " wide.	No figures are available as to annual output as we have only just entered upon the commercial stage of this manufacture. We anticipate that we could meet the demand of the whole of India with ease.	10	33 $\frac{1}{3}$
(b) Round Spring Steel for Spiral Springs any diameter from $\frac{1}{4}$ " upwards.	...	10	33 $\frac{1}{3}$
(c) Square Spring Steel for Spiral Springs any size from $\frac{1}{4}$ " square upwards.	...	10	33 $\frac{1}{3}$

As stated in our letter of May 4th, the lowest imported price of Spring Steel with which we have had to compete is Rs. 9 per cwt. This price was given to us by Messrs. Burn & Co., Howrah, as the price actually paid by them for a quantity ordered by them for Wagon Springs.

4. *Rolled Steel articles which it is proposed to manufacture.*

Description.	Estimated Annual Output.	Present Duty.	Proposed Duty.
(a) Carbon Steel for Mining Tools, Octagon, Hexagon, Ovals, etc.	Depends entirely on the demand which, according to the Customs returns, amounts to approximately Tons 1,000 per annum. Our Rolling Mills could meet this demand in addition to the Spring Steel demand with ease.	...	We do not propose to ask for a bounty or increased import duty on these articles as their manufacture is not likely to reach the commercial stage for at least two years.
(b) Carbon Steel for Smiths' Tools, Chisels, Drills, Hammers, Squares, Rounds, Flats & Ovals.	...	...	...
(c) Carbon Tool Steels for Engineers' Tools, Squares, Rounds & Flats.	...	...	...

net.	September.	Total.	Rate.	Amount.
				Cwts. qr. lbs
				9,758 1 18
			Produced Liquid Steel:—	
			Rs. A. P.	Rs. A. P.
95 0 0	760 0 0	2,369 0 0	20 0 0 ton	2,369 0 0
22 0 0	428 0 0	6,810 0 0	13 0 0 „	4,426 8 0
51 0 0	447 0 0	1,403 0 0	20 0 0 „	1,403 0 0
47 3 25	16 3 2	115 3 12	200 0 0 „	1,158 9 3
4 0 0	14 0 0	67 0 0	22 2 0 cwt.	1,482 6 0
0 1 23	0 1 22	2 2 15	94 0 0 „	247 9 6
30 0 0	180 0 0	780 0 0	13 8 0 ton	526 8 0
4 0 0	90 0 0	592 0 0	120 0 0 per 100 mds.	970 4 9
6 1 10	4 2 0	26 1 6	0 9 6 lb.	1,749 3 0
No. 10	No. 7	No. 48	2 4 0 each	68 0 0
4 2 12	1 2 12	35 2 24	16 0 0 ton	28 9 0
6 0 0	11 1 11	39 2 23	5 0 0 cwt.	198 8 6
	14 2 10	28 2 24	85 0 0 ton	112 0 6
No. 310	No. 255	No. 1515	0 12 0 each	1,136 4 0
8 0 0	581 0 0	3,491 12 3	...	3,491 12 3
9 0 0	2,924 0 0	22,650 0 0	16 0 0 ton	18,120 0 0
5 0 0	79 15 3	454 15 3	...	454 15 3
1 7 3	2,039 4 0	4,298 0 0	...	10,361 9 6
2 12 6	184 8 0	2,917 12 3	...	2,917 12 3
7 7 9	132 11 3	1,000 15 3	...	1,000 15 3
				52,243 7 0

Less credit for scrap recoveries ... 3,222 0 0

Nett cost of Materials:— Rs. 49,021 7 0

STATEMENT A.

Particulars.	April 1924.	May.	June.	July.	August.	September.	October.	November.	December.	January 1925.	February.	March.	TOTAL.	Rate.	Amount.	April 1925.	May.	June.	July.	August.	September.	Total	Rate.	Amount.														
													Cwt. Qr. lbs.																									
Produced Liquid Steel:—																							Cwts. qr. lbs															
Rs. A. P.																							9,758 1 18															
Rs. A. P.																							Rs. A. P.															
Electric Furnace.																							2,389 0 0															
Steel Scrap (Miscellaneous)	350 0 0	370 0 0	395 0 0	320 0 0	536 0 0	397 0 0	245 0 0 268 0 0	535 0 0	613 0 0	632 0 0	498 0 0	340 0 0	5,171 0 0 268 0 0	20 0 0 ton	5,171 0 0 268 0 0	240 0 0	...	350 0 0	444 0 0	595 0 0	780 0 0	2,389 0 0	20 0 0 ton	2,389 0 0														
Steel Borings	1,330 0 0	1,757 0 0	1,000 0 0	1,125 0 0	1,273 0 0	1,233 0 0	490 0 0	919 0 0	921 0 0	988 0 0	857 0 0	1,910 0 0	13,803 0 0	13 0 0 "	8,971 15 3	1,213 0 0	1,675 0 0	1,413 0 0	959 0 0	1,122 0 0	428 0 0	6,810 0 0	13 0 0 "	4,426 8 0														
Foundry Scrap	20 0 0	...	125 0 0	325 0 0	425 0 0	395 0 0	280 0 0	519 0 0	457 0 0	637 0 0	423 0 0	52 0 0	3,658 0 0	20 0 0 "	3,658 0 0	30 0 0	...	206 0 0	369 0 0	351 0 0	447 0 0	1,403 0 0	20 0 0 "	1,403 0 0														
Ferro Manganese	12 0 20	18 0 24	11 0 0	16 0 0	12 0 0	18 0 0	5 0 0	15 0 0	15 0 0	15 0 0	16 0 0	6 0 0	159 1 16	300 0 0 "	2,390 15 0	12 0 0	8 0 0	8 3 10	22 1 3	47 3 25	16 3 2	115 3 12	200 0 0 "	1,158 9 3														
Ferro Silicon	10 0 0	10 0 0	10 0 0	15 0 0	5 0 0	10 0 0	5 0 0	10 0 0	10 0 0	15 0 0	10 0 0	10 0 0	120 0 0	22 2 0 cwt.	2,655 0 0	10 0 0	12 0 0	10 0 0	7 0 0	14 0 0	14 0 0	67 0 0	22 2 0 cwt.	1,482 6 0														
Aluminium	0 2 1	0 3 8	0 2 12	0 1 17	.....	0 1 24	0 1 22½	0 1 21	0 2 5	0 2 3	0 2 16	0 2 16	6 0 3	94 0 0 "	566 8 3	0 0 24	0 1 21	0 1 21	0 2 16	0 1 23	0 1 22	2 2 15	94 0 0 "	247 9 6													
Refractories.																							780 0 0															
Dolomite	140 0 0	160 0 0	220 0 0	120 0 0	120 0 0	60 0 0	160 0 0	280 0 0	120 0 0	60 0 0	120 0 0	60 0 0	1,620 0 0	13 8 0 ton	1,093 8 0	60 0 0	60 0 0	180 0 0	120 0 0	180 0 0	180 0 0	780 0 0	13 8 0 ton	526 8 0														
Lime	92 0 0	114 0 0	74 0 0	62 0 0	104 0 0	...	.....	...	204 0 0	126 0 0	100 0 0	124 0 0	1,000 0 0	140 0 0 per 100 mds.	1,911 1 0	82 0 0	94 0 0	108 0 0	94 0 0	124 0 0	90 0 0	592 0 0	120 0 0 per 100 mds.	970 4 9											
Electrodes	4 3 8	9 0 21	5 3 25	6 3 5	4 1 24	7 1 13	2 1 0	4 2 21	4 2 13	5 1 12	3 1 11	4 0 2	62 3 15	0 9 6 lb.	4,181 12 6	2 2 20	4 2 21	6 3 21	1 0 8	6 1 10	4 2 0	26 1 6	0 9 6 lb.	1,749 3 0														
Nipples	No. 3	No. 13	No. 10	No. 9	No. 6	No. 11	No. 3	No. 11	No. 7	No. 9	No. 6	No. 6	No. 94	2 4 0 each	211 8 0	No. 5	No. 7	No. 12	No. 7	No. 10	No. 7	No. 48	2 4 0 each	68 0 0														
Slagging Material.																							35 2 24															
Iron Ore	24 0 0	26 0 0	16 2 0	8 0 0	14 0 0	...	.....	...	.....	.....	.....	7 2 0	96 0 0	16 0 0 ton	76 3 0	...	5 0 0	12 2 0	12 0 0	4 2 12	1 2 12	35 2 24	16 0 0 ton	28 9 0								
Anthracite	7 0 9	8 3 10	5 1 10	5 2 26	7 0 26	6 3 16	4 3 10	11 3 12	5 3 16	6 2 20	2 0 0	2 2 20	75 0 7	5 0 0 cwt.	375 5 0	6 0 0	7 1 26	6 3 14	2 0 0	6 0 0	11 1 11	39 2 23	5 0 0 cwt.	198 8 6														
Flour Spare	1 0 0	2 2 5	2 0 0	1 0 0	1 0 0	4 0 0	1 0 0	3 0 0	4 0 0	4 0 0	2 0 0	2 1 8	27 3 13	85 0 0 ton	118 7 3	2 0 0	4 0 0	3 3 20	4 0 22	.....	14 2 10	28 2 24	85 0 0 ton	112 0 6													
Sleeves, Stoppers and Nozzles	No. 239	No. 285	No. 190	No. 230	No. 260	No. 275	No. 150	No. 285	No. 275	No. 315	No. 250	No. 310	No. 3055	1 0 0 each	3,055 0 0	No. 205	No. 240	No. 270	No. 235	No. 310	No. 255	No. 1515	0 12 0 each	1,136 4 0														
Miscellaneous Stores	775 0 0	774 0 0	779 0 0	786 0 0	790 0 0	865 0 0	795 0 0	808 0 0	740 0 0	765 0 0	780 0 0	873 14 0	...	...	9,530 14 0	592 0 0	595 0 0	580 0 0	575 0 0	568 0 0	581 0 0	3,491 12 3	...	3,491 12 3												
Moulding Composition	2,913 0 0	4,148 0 0	2,669 0 0	3,647 0 0	4,986 0 0	2,776 0 0	1,295 0 0	3,016 0 0	3,352 0 0	4,913 0 0	3,889 0 0	4,744 0 0	42,348 0 0	20 0 0 ton	42,348 0 0	2,514 0 0	3,486 0 0	4,780 0 0	4,337 0 0	4,709 0 0	2,924 0 0	22,650 0 0	16 0 0 ton	18,120 0 0														
Miscellaneous Stores	600 0 0	500 0 0	550 0 0	556 0 0	560 0 0	572 0 0	558 0 0	570 0 0	580 0 0	590 0 0	570 0 0	785 0 6	6,991 0 6	...	6,991 0 6	75 0 0	75 0 0	75 0 0	75 0 0	75 0 0	79 15 3	454 15 3	...	454 15 3														
Stores Machine Shop	588 6 9	319 0 0	474 0 0	723 0 0	689 0 0	569 0 0	725 0 0	1,683 0 0	1,112 5 3	629 7 0	372 15 0	470 0 3	8,357 2 3	...	8,357 2 3	1,446 6 6	2,240 6 6	1,586 2 3	1,497 15 0	1,531 7 3	2,039 4 0	4,298 0 0	...	10,361 9 6														
Stores Welding Department	768 2 0	1,107 0 0	1,271 0 0	1,402 0 0	1,124 0 0	2,740 0 0	2,268 0 0	2,626 0 0	2,103 0 0	2,545 6 0	2,043 9 9	2,693 2 3	22,692 0 0	...	22,692 0 0	1,302 5 6	423 15 6	429 9 6	314 9 3	262 12 6	184 8 0	2,917 12 3	...	2,917 12 3														
Stores Pattern Shop Department	165 0 0	127 0 0	150 0 0	123 0 0	145 0 0	269 0 0	103 0 0	172 0 0	78 0 0	115 0 0	66 0 0	147 0 0	1,660 0 0	...	1,660 0 0	229 11 3	132 1 6	194 7 9	204 7 9	107 7 9	132 11 3	1,000 15 3	...	1,000 15 3														
															1,26,283 3 0																						52,243 7 0	

TOTAL WEIGHT—FINISHED CASTINGS—Cwts. 13,740-0-0

TOTAL WEIGHT—FINISHED CASTINGS—Cwts. 6,508-1-18

Less credit for scrap recoveries ... 6,870 0 0

Less credit for scrap recoveries ... 3,222 0 0

Nett cost of Materials ... Rs. 1,19,413 3 0

Nett cost of Materials:— Rs. 49,021 7 0

STATEMENT B.

Particulars.	April 1924.	May.	June.	July.	August.	September.	October.	November.	December.	January 1925.	February.	March.	Total.	Rate.	Amount.	April 1925.	May.	June.	July.	August.	September.	Total.	Rate.	Amount.
										Cwts. qr. lb.			13,740 0 0		Rs. a. p.									Rs. a. p.
										Total finished Castings			1,19,413 3 0		1,19,413 3 0					6,506 1 18				49,021 7 0
Electric Current	6,813 0 0	6,668 0 0	4,922 0 0	5,395 0 0	6,633 0 0	5,621 0 0	3,207 0 0	5,310 11 6	6,310 3 0	5,882 12 0	4,453 7 6	6,360 5 4	67,576 7 4	...	67,576 7 4	4,334 6 0	4,735 10 6	6,460 6 6	5,145 6 3	5,841 4 6	5,160 13 6	31,677 15 3	...	31,677 15 3
Steam Coal	1,252 0 0	1,516 0 0	1,229 0 0	1,249 0 0	1,456 0 0	960 0 0	940 0 0	1,824 0 0	1,890 0 0	2,126 0 0	1,311 0 0	2,206 0 0	17,961 0 0	12 ton	10,776 9 6	1,621 0 0	2,416 0 0	2,647 0 0	2,570 0 0	2,892 0 0	2,494 0 0	14,640 0 0	11 ton	8,052 0 0
Hard Coke	164 0 0	195 0 0	149 0 0	165 0 0	284 0 0	110 0 0	145 0 0	96 0 0	140 0 0	63 0 0	69 0 0	61 0 0	1,641 0 0	21 ..	1,723 0 9	52 0 0	91 0 0	88 0 0	100 0 0	145 0 0	122 0 0	598 0 0	21 ..	627 14 0
Gas Coke	74 0 0	65 0 0	78 0 0	73 0 0	160 0 0	85 0 0	51 0 0	144 0 0	176 0 0	105 0 0	83 0 0	73 0 0	1,137 0 0	25 ..	1,421 4 0	...	...	...	...	...	...	...	...	...
Magnesite Bricks . . . . .	...	50 pes.	20 pes.	..	6 pes.	...	230 pes.	...	12 pes.	...	150 pes.	...	No. 468	2 each	936 0 0	...	140 pes.	60 pes.	8 pes.	...	131 pes.	339 pes.	1 each	339 0 0
Silica Bricks	5	500 ..	380 ..	12 pes.	22 ..	...	245 ..	...	285 ..	...	282 ..	...	.. 1731	32 per 100	553 14 9	...	350 ..	...	350 ..	346 pes.	683 ..	1,729 ..	32 per 100	553 4 6
Fire Clay	10 0 0	16 0 0	12 0 0	58 0 0	...	104 0 0	36 0 0	63 0 0	101 0 9	120 0 0	64 0 0	20 0 0	604 0 0	35 ton	1,057 0 0	12 0 0	16 0 0	14 0 0	28 0 0	51 0 0	67 2 0	188 2 0	32 tons	301 9 6
Miscellaneous Stores	990 0 0	995 0 0	998 0 0	892 0 0	885 0 0	892 0 0	875 0 0	882 0 0	875 0 0	832 0 0	856 0 0	979 0 0	...	...	10,969 0 9	779 4 9	782 8 3	705 5 0	773 11 9	736 7 0	763 6 0	4,540 10 9	...	4,540 10 9
<i>General Works Supervision.</i>															2,14,426 8 1									
European	2,480 0 0	2,558 0 0	2,296 0 0	2,250 0 0	2,590 0 0	3,206 0 0	1,707 0 0	911 0 0	993 3 3	927 0 0	900 0 0	930 0 0	21,688 3 3	...	21,688 3 3	883 7 0	894 4 0	910 5 0	900 4 6	929 10 0	950 5 0	5,468 3 6	...	5,468 3 6
Indian	435 0 0	435 0 0	435 0 0	435 0 0	435 0 0	585 0 0	580 0 0	571 0 0	500 0 0	530 0 0	530 0 0	530 0 0	5,951 10 0	...	5,951 10 0	476 15 9	544 12 0	545 0 0	513 7 6	510 0 0	534 2 9	3,124 6 0	...	3,124 6 0
Workers' Wages	8,482 5 3	10,056 0 0	9,270 0 0	9,682 0 0	9,773 0 0	9,491 0 0	7,442 0 0	11,081 0 0	11,426 0 0	11,672 4 0	11,480 0 0	11,147 15 0	1,20,003 15 3	Iron Foundry	1,20,003 15 3 1,245 11 0	7,922 9 0	8,942 7 0	9,991 1 0	9,625 12 0	10,010 5 6	8,766 2 6	55,258 5 0	...	55,258 5 0
															3,63,315 15 7									1,58,964 11 6

Total Finished Castings Cwts. qr. lbs.
13,740 0 0
Total Cost Rs. 3,62,070 4 7
Net Works Cost per cwt. ,, 26 5 7

Total Finished Castings Cwts. qr. lbs.
6,506 1 18
Total Cost Rs. 1,58,964-11-6
Nett Works Cost per cwt. ,, 24-7-0

STATEMENT B.

Number.	January 1925.	February.	March.	Total.
	Cwts. qr. lb.	Cost of Materials		
	13,740 0 0			1,19,413 3 0
6,310 3 0	5,882 12 0	4,453 7 6	6,360 5 4	67,576 7 4
1,890 0 0	2,126 0 0	1,311 0 0	2,208 0 0	17,961 0 0
140 0 0	63 0 0	69 0 0	61 0 0	1,641 0 0
176 0 0	105 0 0	83 0 0	73 0 0	1,187 0 0
12 pcs.	...	150 pcs.	...	No. 468
265 ..	...	232 ..	...	.. 1731
101 0 9	120 0 0	64 0 0	20 0 0	604 0 0
875 0 0	832 0 0	856 0 0	979 0 0	...
983 3 3	927 0 0	900 0 0	930 0 0	21,688 3 3
500 0 0	530 0 0	530 0 0	530 0 0	5,951 10 0
1,226 0 0	11,672 4 0	11,480 0 0	11,147 15 0	1,20,003 15 3

H

Cwts. qr. lbs.
13,740 0 0

Rs. 3,62,070 4 7

26 5 7

Amount.	April 1925.	May.	June.	July.
<i>Rs. a. p.</i>				
1,19,413 3 0	...	...	...	...
67,576 7 4	4,334 6 0	4,735 10 6	6,460 6 6	5,145 6 3
10,776 9 6	1,621 0 0	2,416 0 0	2,647 0 0	2,570 0 0
1,723 0 9	52 0 0	91 0 0	88 0 0	100 0 0
1,421 4 0	...	...	...	...
936 0 0	...	140 pcs.	60 pcs.	8 pcs.
553 14 9	...	350 ,,	...	350 ,,
1,057 0 0	12 0 0	16 0 0	14 0 0	28 0 0
10,969 0 9	779 4 9	782 8 3	705 5 0	773 11 9
2,14,426 8 1				
21,668 3 3	883 7 0	894 4 0	910 5 0	900 4 6
5,961 10 0	476 15 9	544 12 0	545 0 0	513 7 6
1,20,003 15 3	7,922 9 0	8,942 7 0	9,991 1 0	9,625 12 0
1,245 11 0				
3,63,315 15 7				

Total Finished Castings Cwts. qr. H
 6,506 1 1
 Total Cost Rs. 1,58,964-11
 Nett Works Cost per cwt. ,, 24-7-0

August.	September.	Total.	Rate.	Amount.
6,506 1 18	...	...	...	<i>Rs. a. p.</i> 49,021 7 0
5,841 4 6	5,160 13 6	31,677 15 3	...	31,677 15 3
2,892 0 0	2,494 0 0	14,640 0 0	11 ton	8,052 0 0
145 0 0	122 0 0	598 0 0	21 ,,	627 14 0
...
...	131 pos.	339 pos.	1 each	339 0 0
346 pos.	683 ,,	1,729 ,,	32 per 100	553 4 6
51 0 0	67 2 0	188 2 0	32 tons	301 9 6
736 7 0	763 6 0	4,540 10 9	...	4,540 10 9
929 10 0	950 5 0	5,468 3 6	...	5,468 3 6
510 0 0	534 2 9	3,124 6 0	...	3,124 6 0
10,010 5 6	8,766 2 6	55,258 5 0	...	55,258 5 0
				1,58,964 11 6

HUKUMCHAND ELECTRIC STEEL WORKS.

STATEMENT "C"—DEPRECIATION.

Year.	Land.	BUILDINGS 3½ PER CENT.		PLANT AND MACHINERY, ETC., 7½ PER CENT.		TOTAL AMOUNT.	
		Expenditure.	Depreciation.	Expenditure.	Depreciation.	Expenditure.	Depreciation.
		Rs. A P.	Rs. A P.	Rs. A P.	Rs. A P.	Rs. A P.	Rs. A P.
March 1920 to March 1923	23,077 9 0	1,28,884 7 0	4,650 15 4	5,53,682 3 6	...	7,15,644 3 6	...
March 1924	...	57,153 2 5		1,87,803 9 10	84,282 10 10	2,44,956 6 3	38,933 10 2
March 1925	...	27,677 7 0	5,116 13 2	20,898 3 0	55,312 14 1	48,575 10 0	60,429 11 3
September 1925	...	10,616 2 6	2,804 2 2	13,492 8 10	35,583 1 9	24,109 11 4	28,387 3 11
	33,077 9 0	2,24,331 2 11	12,571 14 8	7,75,877 3 2	1,25,178 10 8	10,33,285 15 1	1,37,759 0 4

HUKUMCHAND ELECTRIC STEEL WORKS.

STATEMENT "D"—INTEREST.

Year.	Capital actually invested and increased yearly.	Total.	Block Capital after deducting depreciation.	Interest charged on Block Capital at 6 per cent.	Interest on working Capital.	Total amount of interest charged.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
March 1920 to March 1923	9,96,921 8 6	...	..	...	...	...
Increased up to March 1924.	1,94,708 12 11	11,91,630 5 5	..	29,907 10 0	4,773 6 0	34,681 0 0
Increased up to March 1925.	1,67,089 14 8	13,58,720 4 1	8,88,589 0 0	53,315 5 0	28,188 0 0	81,503 5 0
Decreased up to September 1925.	66,022 5 2	12,92,697 14 11	8,80,735 0 0	26,422 10 6	15,982 14 9	42,405 9 3
	...	...	...	1,09,645 9 6	48,944 4 9	1,58,589 14 3

HUKUMCHAND ELECTRIC STEEL WORKS.

STATEMENT "E"—HEAD OFFICE CHARGES.

Year.	Supervision.	Management.	Commission.	Total.
	Rs. A. P.	Rs. A. P.		Rs. A. P.
March 1920 to March 1923.	45,381 0 0	38,438 2 0	nil	83,819 2 0
March 1924 . .	18,000 0 0	35,381 13 7	„	53,381 13 7
March 1925 . .	18,000 0 0	34,614 12 0	„	52,614 12 0
September 1925 .	9,000 0 0	20,897 9 7	„	29,897 9 7
	90,381 0 0	1,29,332 5 2		2,19,713 5 2

HUKUMCHAND ELECTRIC STEEL WORKS, BALLYGUNGE.

Cost Account for twelve months from April 1924 to March 1925.

PARTICULARS.	Weight.		Cost per Cwt.		Amount.	PRODUCTION.	Weight.		Cost per Cwt.		Amount.					
	Cwt.	qr.	lb.	Rs.			A.	P.	Cwt.	qr.		lb.	Rs.	A.	P.	
Stores Issued . . .	20,610	0	0	2	2	4	Liquid Steel. Steel produced (estimated).	20,610	0	0	5	13	0	1,20,030	2	4
Electricity Consumed . . .	...	...	...	2	7	4							
European Establishment . . .	...	...	...	0	11	9							
Do Bonus . . .	...	...	...	0	2	4							
Indian Establishment . . .	...	...	...	...	...	...				
Worker's Wages . . .	...	...	...	0	5	3							
Repairs . . .	...	...	...	...	...	...				
TOTAL	20,610	0	0	5	13	0	20,610	0	0	5	13	0	1,20,030	2	4	
Liquid Steel as above . . .	20,610	0	0	Moulding Shop. Recoveries 33½ per cent. Transfer to machine shop	6,870	0	0	1	0	0	6,870	0	0
Stores Issued . . .	...	...	...	4	9	7							
European Establishment . . .	...	...	...	0	4	0							
Indian Do . . .	...	...	...	0	5	2							
Moulder's Wages . . .	...	...	...	6	8	6							
Patternshop Stores . . .	...	...	...	0	2	0							
Do. Wag . . .	...	...	...	0	4	2							
TOTAL	20,610	0	0	2,86,482	5	4	20,610	0	0	...	2,86,482	5	4			

				Machine Shop.		
Moulding Shop as above	13,740 0 0	20 5 7	2,79,612 5 4	Challans for the month	...	...
Stock from . . . . .	...	...	...	Closing Stock . . . . .	...	...
Work in outside shop . . . . .	...	...	...
Establishment . . . . .	...	1 8 0	1,500 0 0			
Stores Machine Shop . . . . .	...	0 9 8	8,357 2 3			
Wages, Do. . . . .	...	1 3 11	17,054 1 6			
Stores, Welding . . . . .	...	1 10 6	22,692 0 0			
Wages, Do. . . . .	...	0 2 10	2,463 15 3			
Electricity Consumed . . . . .	...	1 3 8	16,854 13 9			
Repairs . . . . .	...	0 15 9	13,515 15 6			
TOTAL WORKS COST	13,740 0 0	26 5 7	3,62,070 5 7		...	...
Head Office Establishment.				By Gross Profit brought down.	...	...
				By Gross Profit on Iron Foundry.	...	...
Overhead charges	13,740 0 0	3 13 3	52,614 12 0			
TOTAL	13,740 0 0	30 2 10	4,14,685 1 7			

HUKUMCHAND ELECTRIC STEEL WORKS, BALLYGÜNGE.

Cost Account for twelve months from April 1924 to March 1925—contd.

PARTICULARS.	Weight.	Cost per Cwt.	Amount.	PRODUCTION.	Weight.	Cost per Cwt.	Amount.
	Cwt. qr. lb.	Rs. A. P.	Rs. A. P.		Cwt. qr. lb.	Rs. A. P.	Rs. A. P.
Contingencies, General charges, Rent and Taxes, Travelling expenses, Motor Car expenses, Insurance, Commission allowance.				
Repairs, Electricshop				
Indian Establishment				
Stores				
Worker's Wages				
Repairs, Smithyshop				
Stores				
Worker's Wages				
Laboratory Charges				
Indian Establishment				
Stores				
Delivery, Freight, Law, Telephone, Printing and Stationery, Postage and Telegram, Advertising charges, etc.				

Ballygange Office and Foundry Establishment.	...	...	...
Depreciation $\frac{1}{4}$ per cent.	13,740 0 0	4 0 6	55,427 8 0			
Net Profit	...	...	...
	13,740 0 0	34 8 4	4,70,122 9 7			

Iron Foundry.

Stores
 Workers' Wages
 Gross Profit

Boxes (Moulding) made

Accountant.

P. C. WILLIAMS,
 Manager.

Letter, dated 12th May 1926, from The Hukumchand Electric Steel Works.

Further to our letter of yesterday's date, we beg to send you herewith results of tests, etc., of our Spring Steel.

1. *Chemical Analysis.*—The British Standard Specification No. 24, Part 3, 1921, requires that the steel must show on analysis not more than 0·8 per cent. nor less than ·05 per cent. of Carbon, nor more than ·05 per cent. of Sulphur and Phosphorus. The following are the analyses of 6 separate heats of our Steel:—

Heat No.	Carbon.	Manganese.	Silicon.	Sulphur.	Phosphorus.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1475	·64	·86	·20	·021	·014
1698	·61	·86	·21	·024	·021
1701	·66	·84	·22	·017	·017
1707	·57	·84	·32	·019	·019
1712	·59	·90	·29	·018	·026
1717	·66	·83	·16	·022	·025

The above analyses were carried out in our own Works Laboratory. Confirmatory Tests were made by the Government Test House, Alipore, and The Metal and Steel Factory, Ishapore, as follows:—

Heat No. 1475.

—	Carbon.	Manganese.	Silicon.	Sulphur.	Phosphorus.
Hukumchand Electric Steel Works.	·57	·85	·19	·022	·012
Government Test House.	·57	·86	·22	·021	·021
Ishapore	·64	·86	·20	·021	·014

Tensile Test.—The British Standard Specification does not call for a Tensile Test, but some Railway Engineers insist upon it. The following results were obtained:—

	Yield Point Tons per Sq. In.	Break Tons per Sq. In.	Elongation per cent.
Government Test House	26·11	51·87	15
Metal and Steel Factory, Ishapore	28·55	53·30	16·50

Cambering Test.—This was carried out at Ishapore as the Government Test House have no facilities for this test.

The results were correct to British Standard Specification Report No. 24, Spec: No. 6b.—1921.

Practical Tests.—These were carried out by the Deputy Chief Mechanical Engineer, East Indian Railway, Lilloah, and the Loco. and Carriage Superintendent, Eastern Bengal Railway, Kanchrupara.

At Lilloah a complete wagon spring was made up from our flat steel 4" x $\frac{1}{2}$ " section. This was put through the ordinary compression and cambering tests alongside a similar spring made from British steel. The results were equal in both cases.

Subsequently the spring made from our steel was subjected to 500 Ten Ton blows and still retained its original camber.

At Kanchrupara two complete springs were made up for Bogie underframes. These were likewise tested alongside British springs. The results were equally satisfactory and the springs are now in service.

Both the East Indian Railway and the Eastern Bengal Railway are now fully satisfied that the quality of our spring steel is equal to the imported British article and they are placing regular orders with us.

Other important railways have also been asked to try out our spring steel and we are confident that in a very short time we shall convince all the first class Railways that we can produce such steel equal in quality to any in the world.

Letter No. F. G. W. D. C., dated the 13th May 1926, from The Hukumchand Steel Works, Calcutta.

Replying to yours of the 10th instant, I received your two wires yesterday and replied by wire that our production costs up to March 31st, 1926, were being prepared. I expect to have them ready to-morrow and will forward them at once. Also that we were including labour as a sub-heading made "Cost over Materials."

2. In our production cost sheets we take the figure for finished output at $\frac{1}{3}$ rd of the liquid steel used as we find from experience that this approximates very closely to the actual sales. The balance $\frac{2}{3}$ rd represents risers and headers, which are necessary to the manufacture, and wasters. During 1924-25 our production cost, completed on the $\frac{1}{3}$ rd basis, showed that we produced cwts. 13,740 of castings. Our actual deliveries for the same period were cwts. 13,838. A difference of cwts. 98 only.

In 1925-26 our production cost showed cwts. 14,122 produced and cwts. 12,916 delivered. The difference here, *viz.*, cwts. 1,106 is greater, but is explained by the fact that we had issued cwts. 1,178 of finished castings to Messrs. Burn & Co., for machining and these could not be delivered until machining was completed.

3. I am sorry that complete cost sheets from the date on which we started are not available. During 1922 and 1923 the works were very much in the experimental stage and output was so small that production costs were of little or no value. It was not until 1924 that a proper system of cost accounting was introduced and we are giving you for comparison our costs for 1924-25 and 1925-26.

4. I propose to leave for Shillong on Saturday next arriving on Sunday 16th and have to-day wired you to this effect. If you think it advisable for me to come a day earlier I should be glad if you let me know by wire. If necessary I shall be able to stay an extra day in order to provide time for the informal discussion with the President which you suggest.

Letter, dated the 13th May 1926, from The Hukumchand Electric Steel Works, Calcutta.

We have pleasure in sending you herewith our production costs sheets for the year ending March 31st, 1926, in the form required by you. As desired, we send you six copies of each statement. We trust the statements sent contain all the information you require. Any further details will be supplied by our representatives when they present themselves for examination on the 17th instant.

Enclosure I.

STEEL CASTINGS.

Production Cost—Year ended March 31st, 1926.

Total Finished Output Cwts. 14,122.

1. Works Costs—

	Rs.	A.	P.
Materials as per Statement "A"	1,24,293	6	0
Less—Scrap recovered	7,129	0	0
NETT TOTAL	1,17,164	6	0

2. Cost over Materials—

	Rs.	A.	P.
Power	65,888	4	9
Fuel	19,468	6	9
Repairs and Relining included in general cost—			
Labour	1,12,309	10	9
General Works Supervision—			
European	12,517	7	9
Indian	7,114	6	0
			2,17,298 4 0
			3,34,462 10 0
Nett cost per cwt. of output			25 10 10

3. Overhead Charges—

	Rs.	A.	P.	
(a) Depreciation	48,468	15	3	See Statement "C"
(b) Interest on working Capital	46,708	4	9	" " "D"
(c) Head Office Charges	59,148	4	10	" " "E"
			1,54,325	
			8	
			10	

Cost per cwt. Rs. 10-14-10.

	Rs.	A.	P.
Works Cost	23	10	0
Overhead Charges	10	14	10
Total Production Cost	34	8	10

Enclosure II.

HUKUMCHAND ELECTRIC STEEL WORKS, BALLYGUNGE.

Cost Account for twelve months from April 1925 to March 1926.

PARTICULARS.	Weight.		Cost per Cwt.		Amount.	Production.	Weight.		Cost per Cwt.		Amount.
	Cwt.	qr. lb.	Rs.	A. P.			Cwt.	qr. lb.	Rs.	A. P.	
Stores Issued	21,181	8 23	43,631 0 9	LIQUID STEEL— Steel Produced (estimated) .	21,181	8 23	1,13,319 9 3
Electricity Consumed . . . . .	...	...	...	49,418 5 3				
European Establishment . . . . .	...	...	}	12,517 7 9					
„ Bonus . . . . .	...	...		...			
Indian Establishment . . . . .	...	...	...	810 0 0				
Worker's Wages . . . . .	...	...	...	6,894 11 6				
Repairs . . . . .	...	...	...	...			
	21,181	8 23	1,13,319 9 3		21,181	8 23	1,13,319 9 3
Liquid Steel as above	21,181	8 23	1,13,319 9 3	MOULDING SHOP— Recoveries 33½ % Transfer to Machinshop .	7,059	3 11	7,059 15 0
Stores Issued . . . . .	...	...	...	59,643 1 0				
European Establishment . . . . .	...	...	...	...			
Indian „ . . . . .	...	...	...	5,374 6 0				
Moulder's Wages . . . . .	...	...	...	85,650 5 6				
Patternshop Stores . . . . .	...	...	...	2,328 1 3				
„ Wages . . . . .	...	...	...	6,502 6 6				
	21,181	8 23	2,72,817 13 6		21,181	8 23	2,72,817 13 6

HUKUMCHAND ELECTRIC STEEL WORKS, BALLYGUNGE—contd.

Cost Account for twelve months from April 1925 to March 1926—contd.

PARTICULARS.	Weight.		Cost per Cwt.		Amount.	Production.	Weight.		Cost per Cwt.		Amount.
	Cwt.	qr. lb.	Rs. A. P.	Rs. A. P.			Cwt.	qr. lb.	Rs. A. P.	Rs. A. P.	
Moulding Shop as above	14,122	0 12	...	2,65,757	14 6	MACHINESHOP— Challans for the month Closing Stock	...	...	...	...
Stock from	...	...	...	...	...		...	...	...	...
Work in outside-shop	...	...	...	13,555	7 6		...	...	...	...
Establishment	...	...	...	8,220	12 9		...	...	...	...
Stores Machinshop	...	...	...	9,881	15 9		...	...	...	...
Wages	...	...	...	4,985	12 9		...	...	...	...
Stores, Welding	...	...	...	4,810	3 6		...	...	...	...
Wages	...	...	...	16,471	15 6		...	...	...	...
Electricity Consumed	...	...	...	11,301	8 9		...	...	...	...
Repairs	...	...	...	...	...		...	...	...	...
TOTAL WORKS COST	14,122	0 12	23 10 10	3,34,435	11 0		...	...	...	...
HEAD OFFICE ESTABLISHMENT.						By Gross Profit brought down	...	...	...	...
Overhead Charges	14,122	0 12	4 5 1	61,004	1 7	" " on Iron Foundry	...	...	...	...
	14,122	0 12	27 15 11	3,95,439	12 7						
Contingencies, General charges, Rent and Taxes, Travelling Expenses, Motor Car expenses, Insurance, Commission allow- ance.	...	...	...	...	...	
Repairs Electricshop	...	...	...	...	...	
Indian Establishment	...	...	...	...	...	
Stores	...	...	...	...	...	
Worker's Wages	...	...	...	...	...	
Repairs, Smithyshop	...	...	...	...	...	

tores . . . . .	...	...	...
Worker's Wages . . . . .	...	...	...
Laboratory Charges . . . . .	...	...	...
Indian Establishment . . . . .	...	...	...
Stores . . . . .	...	...	...
Delivery, Freight, Law, Telephone, Printing and Stationery, Postage and Telegram Advertising charges, etc.	...	...	...
Ballygunge Office and Foundry Establishment.	...	...	...
Depreciation 6¼%	14,123 0 12	4 4 8	60,595 11 0
NETT PROFIT	14,123 0 12	32 4 7	4,56,085 7 7

...
...
...

IRON FOUNDRY

Stores . . . . .	...	Boxes (Moulding) made . . . . .	...
Worker's Wages . . . . .	...	
Gross Profit . . . . .	...		...

F. G. WILLIAMS,
Manager.

STATEMENT A.

Hukumchand Electric Steel Works.

Description.	October 1925.	November 1925.	December 1925.	January 1926.	February 1926.	March 1926.	Total.	Rate.	Amount.
Produced liquid steel—11,423-2-5									Es. A. P.
<i>Scrap.</i>									
Miscellaneous, Heavy	576 0 0	483 0 0	540 0 0	614 1 14	478 0 0	635 0 0	3,326 1 14	20 0 0 ton	3,326 6 0
Borings	1,159 0 0	848 0 0	932 0 0	1,205 0 0	935 0 0	1,271 0 0	6,350 0 0	13 0 0 "	4,127 8 0
Foundry	700 0 0	470 0 0	565 0 0	440 0 0	390 0 0	520 0 0	3,085 0 0	20 0 0 "	3,085 0 0
Ferro Manganese	25 2 1	12 3 18	14 3 12	21 2 7	13 2 11	16 3 6	105 1 19	200 0 0 "	1,054 3 0
„ Silicon	14 0 0	6 0 8	10 3 4	18 0 0	9 0 0	15 3 0	73 2 12	22 13 0 cwt.	1,674 9 0
Aluminium	0 3 18	0 0 24	0 2 5	0 2 4	0 1 21	0 5 10	3 2 4	94 0 0 "	332 5 9
<i>Refractories.</i>									
Dolomite—Raw	180 0 0	200 0 0	120 0 0	180 0 0	120 0 0	240 0 0	1,040 0 0	13 8 0 ton	702 0 0
Lime, Unslacked	136 0 0	98 0 0	112 0 0	120 0 0	100 0 0	134 0 0	700 0 0	120 0 0 md.	1,147 3 0
Electrodes	9 2 22	8 0 22	5 1 26	8 1 20	8 1 19	7 3 2	47 3 27	0 9 6 lb.	3,191 6 6
Nipples	18 0 0	19 0 0	15 0 0	13 0 0	15 0 0	13 pos.	93 pos.	3 4 0 oz.	304 12 0
Iron Ore	8 0 6	7 1 8	8 3 20	2 1 18	3 3 10	9 0 12	39 2 18	10 0 0 ton	31 11 3
Anthracite	14 0 0	13 3 14	10 3 10	16 3 9	13 1 23	15 1 17	84 1 17	4 0 0 cwt.	357 9 9
Fluorspar	8 2 0	6 1 20	3 0 22	6 0 11	9 0 6	10 1 20	43 2 23	85 0 0 ton	203 10 0
Stopper Nozzles Sleeves	320 pos.	260 0 0	300 pos.	280 pos.	250 0 0	345 0 0	1,755 pos.	1 0 0 oz.	1,755 0 0
Miscellaneous	500 9 9	490 8 0	512 6 0	520 10 0	501 0 0	494 8 0	3,019 9 9	...	3,019 9 9
Moulding Composite	3,902 0 0	3,413 0 0	3,362 0 0	3,488 0 0	2,840 0 0	3,164 0 0	16,669 0 0	16 0 0 ton	24,292 14 0
Miscellaneous Stores	1,316 8 0	1,325 0 0	1,222 0 0	1,213 9 0	1,214 0 0	1,209 0 0	7,900 8 0	...	14,235 3 0
Machinshop Stores	901 1 0	529 12 3	656 5 9	651 0 0	636 12 0	547 13 9	3,922 12 9	...	7,400 8 0
Welding Stores	351 15 0	152 14 6	308 12 0	385 11 0	504 2 0	354 10 0	2,018 0 6	...	3,922 12 9
Pattern Stores	154 7 3	216 6 3	356 0 3	286 1 0	172 2 3	142 1 0	1,927 2 0	...	2,018 0 6
									1,927 2 0
									53,196 8 3
									3,807 0 0
									Less—Credit for Scrap recoveries
									Carried over—Nett cost of materials
									49,389 8 3

STATEMENT B.

Hukumchand Electric Steel Works.

Description.	October 1925.	November 1925.	December 1925.	January 1926.	February 1926.	March 1926.	Total.	Bate.	Amount.
			Total finished steel produced—7,615-2-22						Rs. A. P.
								Brought forward	49,389 8 3
Electric Current	5,876 2 9	5,830 5 9	4,962 5 6	5,704 2 0	5,701 5 6	6,146 0 0	34,210 5 6	...	34,210 5 6
Steam Coal	3,041 0 0	2,763 0 0	3,328 0 0	3,033 0 0	3,459 0 0	2,753 0 0	18,577 0 0	11 ton	10,107 5 6
Hard Coke	95 0 0	101 0 0	114 0 0	91 0 0	129 0 0	178 0 0	708 0 0	18 ,,	673 3 3
Gas Coke . . . . .	...	...	...	...	...	8 0 0	8 0 0	20 ,,	8 0 0
Magnesite Bricks . . . . .	...	6 pos.	83 pos.	...	...	...	89 0 0	1 oz.	89 0 0
Silica Bricks . . . . .	...	549 ,,	674 ,,	...	407 0 0	745 0 0	2,375 0 0	32 per cent.	760 0 0
Fire Clay	38 0 0	21 0 0	20 0 0	23 0 0	9 0 0	19 0 0	130 0 0	30 ton	195 0 0
Miscellaneous Stores	2,015 0 0	2,112 16 0	2,104 6 0	2,001 9 0	1,998 7 0	1,782 0 0	12,014 14 0	...	12,014 14 0
European Establishment	1,072 13 9	1,096 12 0	1,114 9 0	1,127 6 0	1,101 6 6	1,536 5 0	7,049 4 3	...	7,049 4 3
Indian Establishment	710 0 0	695 0 0	695 0 0	630 0 0	630 0 0	630 0 0	3,890 0 0	...	3,990 0 0
Workers' Wages	2,537 11 9	2,718 6 6	2,826 5 9	10,683 13 9	8,559 6 0	2,725 0 0	37,051 5 9	...	37,051 5 9
TOTAL	...	...	...	...	...	...	...	...	1,75,501 14 6

416

Cwts qr. lbs.

Total Finished Castings 7,615 2 22
 Total Cost Rs. 1,75,501-14-6.
 Nett Works Cost ,, 23-0-9.

STATEMENT C.

Depreciation.

Hukamchand Electric Steel Works.

Year.	Building Expenditure.	2½ per cent. Depreciation.	Plant and Machinery Expenditure.	7½ per cent. Depreciation.	Total Expenditure.	Total Depreciation.	REMARKS.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
March 1925 . . .	2,13,715 0 5	9,767 12 6	7,62,383 10 4	89,595 8 11	10,09,176 3 9	99,363 5 5	
to September 1925 . . .	10,616 2 6	...	13,493 8 10	....	24,109 11 4	...	
March 1926 . . .	32,731 7 0	6,426 8 9	11,627 12 11	59,062 14 0	44,359 3 11	65,489 6 9	
	2,57,062 9 11	16,194 5 3	7,87,505 0 1	1,48,658 6 11	10,77,645 3 0	1,64,852 12 2	
Land	33,077 9 0	...	...	...	...	...

STATEMENT D.

Interest.

Hukumchand Electric Steel Works.

Year.	Capital actually invested and increased or decreased yearly.	Total.	Block Capital after deducting depreciation.	Interest charged on Block Capital at 6 per cent.	Interest on Working Capital.	Total amount of Interest charged.	REMARKS.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Increased up to March 1925.	....	13,58,720 4 1	8,88,589 0 0	53,315 5 0	28,188 0 0	81,503 5 0	
Decreased up to September 1925.	66,022 5 2	12,92,697 14 11	8,80,735 0 0	56,422 10 6	15,982 14 9	42,405 9 3	
Up to March 1926 .	22,384 5 8	12,70,313 9 3	9,12,792 6 10	58,109 6 0	10,725 8 0	40,824 12 3	
TOTAL .	.....	.....	.....	1,17,847 5 6	54,896 4 9	1,72,743 10 6	

STATEMENT E.

Head Office Charges.

Hukumchand Electric Steel Works.

Year.	Supervision.	Management.	Commission.	Total.	REMARKS.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
September 1925	9,000 0 0	20,897 9 7	...	29,897 9 7	
March 1926	9,000 0 0	20,250 11 3	...	29,250 11 3	
TOTAL	18,000 0 0	41,148 4 10	...	59,148 4 10	

Letter from the Tariff Board, to Messrs. Burn and Company, The Indian Standard Wagon Company, Limited, Messrs. Jessop & Co., Limited, and the Peninsular Locomotive Company, Limited, dated the 25th May 1926.

I am directed to state that in view of the proposals put forward by wagon builders in their recent representations, for the imposition of duties on imported wagons and carriage underframes, in lieu of the payment of bounties, it is essential that the Tariff Board should be furnished with the fullest possible information in regard to your costs. It would be convenient if this were supplied in respect of—

- (a) wagons
- (b) underframes

both broad gauge and metre gauge and in the manner indicated below which is based on the lines followed by the Board in Chapter V of their First Report on steel in dealing with the costs of producing steel at Jamshedpur. It will be seen from that Chapter that the costs of production fall under the three main heads:—

- I. Works costs.
- II. Overhead charges.
- III. Manufacturer's profit.

The information required in regard to the first two of these is shown in detail below.

I. Works costs.

These which include all costs incurred at the works in the process of manufacture should be shewn as follows:—

Type and description of $\frac{\text{wagon}}{\text{un. er frame}}$ broad gauge and metre gauge.

1. Materials, e.g.—

	Weight.	Rate.	Value.
Indian steel			
Imported British			
Imported Continental			
Castings—Indian			
Imported British			
Imported Continental			
Fittings			
Other materials			
Stores, etc.			

N.B.—Materials supplied by Railways, e.g., wheels, axles, etc., should not be included.

2. Cost above materials—

Power	
Fuel	
Labour	
Repairs	
General works—supervision—	
(a) European	
(b) Indian	
Nett cost per unit of output	
Total number of units in the year of each type	

The information in regard to works costs should be supplied for each official year from 1922-23 up to March 1926. If the figures cannot conveniently be given for the official year, the calendar year may be used. Copies of your cost sheets in the form in which you keep them may be supplied for each year or half year as the case may be.

II. Overhead charges.

These should be sub-divided as follows:—

- (a) Depreciation.
- (b) Interest on working capital.
- (c) Head Office charges.

(a) Depreciation.

- (i) In order to ascertain this, it is necessary that the block value should be fixed. This should be shewn in the following form which would give the amount spent each year since the establishment of the works up to date.

Year.	Land.	Buildings.	Plant and machinery.	Miscellaneous.	TOTAL.

- (ii) The amount of depreciation actually written down year by year, and the rate at which it was calculated should be stated. If the amount written off as depreciation is greater or less than that which you consider reasonable for buildings or plant of this type, the rate which you consider reasonable in normal conditions should be stated.

- (iii) The replacement value at the present ruling prices for the whole block should, if possible, be stated under the above headings.

(b) The amount of working capital actually employed should be clearly stated together with the rate of interest which is being paid on it. If the working capital is less than you consider necessary, the amount required and the rate at which it could be procured should be stated. It is essential that the interest paid on this should be distinguished from the profit expected on the capital invested in the block.

(c) Head office charges include all expenditure incurred by the Head Office on supervision, management, commission, if any, on sales, etc. The expenditure incurred on each of these items should be separately stated, if possible.

III. Manufacturer's profit.

The amount of capital invested under various denominations, *e.g.*, Debentures, Preference, Ordinary shares, etc., together with the rate of interest paid or payable on debentures and preference shares, and the rate of return you consider reasonable on capital invested in works of this kind should be stated.

Letter from the Secretary, Tariff Board, to the Secretary, Railway Board, Simla, dated 29th May 1926.

With reference to the enquiry now being held by the Tariff Board under section (6) of the Steel Industry (Protection) Act, 1924, I am directed to enclose copies of representations received from the following companies:—

- (1) The Indian Standard Wagon Company, Calcutta.
- (2) Messrs. Burn & Co., Calcutta.
- (3) Messrs. Jessop & Co., Calcutta.
- (4) The Peninsular Locomotive Company, Bombay.

In the event of the Board finding it necessary to examine the Railway Board orally, these representations will form part of the material on which the examination will be based. In the meanwhile, it would be of very great assistance if the Board could be furnished with the views of the Railway Board on such of the important points which arise out of these representations as are summarised below:—

(1) The statement that the wagon building firms have been able to reduce their costs of production by reason of the fact that they have been able to use Continental materials such as axle boxes, buffers, solebar stiffeners, etc., but that if the Railway Board were to insist upon the use of British materials, their costs would automatically increase (page 3 of Messrs. Burn & Co.'s representation). The Board would be glad to know whether there is any likelihood that the Railway Board will insist on the use of British materials.

(2) Messrs. Burn & Co.'s statement that, as the Indian Standard Wagon Company received an order for 1,750 wagons only against a tender for 2,000 wagons, this involved a loss of Rs. 133 on each wagon as the overhead charges had to be divided amongst the smaller number of wagons (pages 3 and 4 of Messrs. Burn & Co.'s representation). The Board would be glad to know the reasons which prevented an order being given to the Indian Standard Wagon Company for the full number of wagons for which the Company tendered.

(3) The Indian Standard Wagon Company and Messrs. Burn & Co. claim that together they can satisfy two-thirds of the demand for broad gauge wagons in India as their capacity has increased to 3,000 wagons per year in the case of the Standard Wagon Company and to 1,000 wagons plus 250 underframes in the case of Messrs. Burn & Co. (pages 4 and 5 of the same representation). The Board would be glad to know if the Railway Board consider this statement correct.

(4) The statement that the Tata Iron and Steel Company are now in a position to supply all kinds of steel utilised in wagon building with the exception of cast steel fittings (page 5 of the same representation). The Board would be glad to know if the Railway Board agree with this statement.

(5) The statement that it is difficult for the industry to judge "the progress made towards successful open competition with foreign" tenders by reason of the fact that the amount of bounty paid under the scheme of protection is not made public (pages 6 and 7 of the same representation). In this connection, the Board would be glad to be informed whether the facts are as stated and, if so, to know the reasons which render it expedient that the amount of bounty paid should be kept secret.

(6) The statement that in the absence of information as to the amount of the bounty paid, the industry is unable to state what increase in the present duty would furnish adequate protection (page 7 of the same representation). In this connection, the Board would be glad if it could be supplied with the following information in tabular form under the following headings for the whole period from the inception of the scheme of bounties up to date:—

1. Year.
2. Type of wagon or underframe.
3. Rate of bounty.
4. Total number of units of each type on which bounty was paid.

5. Firms to whom bounties were paid.

6. Total amount of bounty paid during the year.

(7) The statement that orders are not called for at regular and stated times each year (page 8 of the same representation). The Board would be glad to know if this statement is correct.

(8) The statement that the orders for carriage underframes are small as compared with those for wagons (page 8 of the same representation). The Board would be glad to know the reasons which prevent larger orders for carriage underframes being placed.

(9) The suggestion put forward by Messrs. Burn & Co. that protection to the construction of underframes should be given in one of the three following ways, the first being considered preferable:—

(a) A specific duty of Rs. 2,000 on each underframe subject to a reduction each year.

(b) An *ad valorem* duty of 26 per cent.

(c) A bounty of Rs. 1,250 on each underframe delivered before March 31st, 1928, and thereafter a bounty diminishing by Rs. 100 per annum on a number of underframes increasing by 50 from 350 to 600 until 1933-34 (page 11 of the same representation).

In this connection, the Board would be glad to know which of these methods the Railway Board would consider most suitable in the event of protection being given to underframes and what modification, if any, of the specific proposal put forward by Messrs. Burn & Co. it would propose.

(10) The statement that Tata's special soft steel has been approved by the Railway Board as a substitute for Grade A Iron (page 13 of the same representation). The Board would be glad to know if this statement is correct.

(11) The claim that wagon forgings are a fit subject for protection, and that the duty thereon should be increased from 10 per cent. to 25 per cent. (page 13 of the same representation).

(12) The statement made by Messrs. Jessop & Co. that "a fair comparison was not made" between the tenders for wagons submitted by them on November 10th, 1925, and the foreign tenders submitted on that occasion (pages 11 and 12 of Messrs. Jessop and Company's representation). The Board would be glad to be informed of the exact facts.

(13) The statement that the Customs duty paid on stores imported on Government account is being refunded and that this has a detrimental effect on indigenous industries (page 21 of Messrs. Jessop and Company's representation). The Board would be glad to know whether this is a correct statement of the position, and, if it is, whether the Railway Board consider that any alteration of the rules is called for.

(14) The suggestion put forward by Messrs. Jessop and Company that a duty of 20 per cent. *ad valorem* should be levied on wagons and one of 15 per cent. *ad valorem* on underframes, if there is no duty on the steel used in their fabrication (page 23 of Messrs. Jessop & Co.'s representation). The Board would be glad to have the views of the Railway Board on this suggestion.

N.B.—Messrs. Jessop & Co. suggest that the duties they propose should be in addition to any compensating protection rendered necessary by the duties on unfabricated steel.

(15) The complaint of the Peninsular Locomotive Company that imported material already inspected before shipment is unnecessarily re-inspected in India (*vide* pages 11 and 12 of their representation). The Board would be glad to have the views of the Railway Board on this point.

(16) The complaint of the Peninsular Locomotive Company that where material such as vacuum brake gear is purchased from agents in Calcutta, the railway freight charged on it is that for railway material, whereas if it is imported direct by the Company, railway freight is charged at full rates (*vide* pages 12 and 13 of their representation). The Board would be glad to have the views of the Railway Board on this point.

(17) The Peninsular Locomotive Company claim to be able to make 100 wagons per month. The Board would be glad to know if the Railway Board consider this statement to be correct.

I am to add that the Tariff Board would welcome an expression of the Railway Board's opinion on any points in the representations which have not been specifically mentioned above.

2. I am also to invite a reference to my letter to you No. 327, dated the 4th July, 1925, and your reply thereto, dated the 21st July, 1925, printed at page 380 *et seq.* of the evidence recorded during the enquiry regarding the grant of supplementary protection to the Steel Industry. The Board would be glad if the information then supplied could be brought up to date, with the addition of a column in enclosures I, II and VI showing the number of units for which orders were actually placed where this differed from the number tendered for.

3. I am further directed to invite a reference to the Board's telegram, dated the 17th August, 1925, and to your note regarding wagon bounties printed on page 390 of the said volume. The Board would be glad if this note could be brought up to date, and in particular if any changes which have taken place, in the method of administering the bounty either in consequence of the recent amendments made in the law or for any other reason, could be fully explained.

4. I am also to enclose a copy of the questionnaire which has been addressed to individual Railway Companies and to say that the Board would be glad if the Railway Board would furnish it with answers to such of the questions as come within the province of the Railway Board and are not likely to be covered by the information supplied by the Railway Board in response to paragraphs 2 and 3 of this letter or by the companies in their replies to the questionnaire.

5. In considering the question whether a specific or an *ad valorem* duty should be substituted for the bounties at present paid on the construction of wagons and underframes, the Tariff Board will have to examine the effect of such a duty on (a) the State railways, (b) the Company railways and (c) on the contribution received by General from Railway Revenues, under the scheme of the separation of Railway from General finances. It will also be necessary for the Tariff Board to consider the effect of the discontinuance of bounties and the levy of a duty on the Revenues of the State as a whole. The Board would be glad if it could be supplied with a statement which will assist it in understanding the position from this point of view with reference to 1926-27, or if figures for this year are not yet available then for 1925-26. For the purposes of calculation the following assumption may be made:—

- (1) That the amount of duty is the equivalent of the average amount of bounty paid per unit, and is in addition to the present *ad valorem* duty of 10 per cent.
- (2) That the price of all wagons and underframes, whether manufactured locally or imported, will increase to the full extent of the duty.

6. The Board would be grateful if the information asked for, or so much of it as can be collected in the time, could be supplied by about the 18th of June next, in order that it may be available for the public examination of the Indian Standard Wagon Company and of Messrs. Burn & Co., which is fixed for the 21st of June, 1926.

Letter from the Secretary, Tariff Board, to the Secretary, Railway Board, No. 317, dated the 2nd June 1926.

In continuation of the Tariff Board's letter No. 210, dated the 7th May 1926, I am directed to state that in considering the question whether a specific or an *ad valorem* duty should be substituted for the bounties at present paid on the manufacture of rails and fishplates, the Tariff Board will have to examine the effect of such a duty on (a) the State Railways, (b) Company Railways and (c) on the contribution received by General from Railway Revenues, under the scheme of the separation of Railway from General finances. It will also be necessary for the Tariff Board to consider the effect of the discontinuance of bounties and the levy of a duty on the Revenues of the State as a whole. The Board would be glad if it could be supplied with a statement which will assist it in understanding the position from this point of view with reference to 1926-27 or if figures for this year are not available then for 1925-26. For the purposes of calculation the following assumptions may be made:—

- (1) That the amount of duty is as proposed by the Tata Iron and Steel Company, *i.e.*, Rs. 40 per ton, and is in addition to the existing specific duty of Rs. 14 per ton.
- (2) That the price of all rails and fishplates, whether manufactured locally or imported, will increase to the full extent of the duty.

2. The Board would be grateful if this information could kindly be supplied by about the 18th instant.

Copy of letter No. 34358, dated the 26th June 1926, from the Secretary, Railway Board, to the Secretary, Tariff Board, Calcutta.

In reply to your letter No. 317, dated the 2nd June 1926, I am directed to say that, on such figures as are at present available, it seems likely that railways in India have placed or will wish to place orders for about 194,000 tons of rails and 6,000 tons of fishplates in 1926-27. With a rise of Rs. 40 a ton in price, these rails and fishplates would cost them about 80 lakhs more, of which about 57 lakhs would probably be debitable to capital and about 23 lakhs to the depreciation fund. A table is attached showing the probable distribution of these figures between State-managed and Company-managed railways.

2. On such estimates as the Railway Board are in a position to make, a rise of Rs. 40 per ton in the cost of the rails and fishplates likely to be ordered *in the current year only* would mean a permanent annual loss to railway revenues of Rs. 4,61,000 and to general revenues (apart from any increased customs receipts) of Rs. 58,000 with a small permanent annual reduction of Rs. 7,000 in companies' shares of surplus profits. In the initial year companies' shares of surplus profits would however be reduced by a sum of about Rs. 2,30,000 of which Rs. 1,84,000 would accrue to railway revenues, and Rs. 46,000 to general revenues.

	Rails.	Fishplates.	ADDITIONAL COST.	
			Capital.	Depreciation Fund.
	Tons.	Tons.	Rs. lakhs.	Rs. lakhs.
State-managed railways	88,000	4,500	37.00	...
Company-managed railways	106,000	1,500	20	23*
TOTAL	194,000	6,000	57	23

* For the purpose of determining Companies' shares of surplus profits this figure would be a direct charge against working expenses.

Copy of letter No. 331, dated the 14th June 1926, from the Secretary, Tariff Board, to the Secretary, Railway Board, Simla.

In continuation of my letter No. 307, dated the 29th May 1926, I am directed to enclose copy of a representation received from the Peninsular Locomotive Company, Limited, in regard to protection for the Locomotive industry and to say that it would be of very great assistance to the Board if it could be furnished with the views of the Railway Board on such of the important points arising out of this representation as are summarised below:—

- (1) The statement that the demand for locomotives in India was greatly under-estimated by the Tariff Board on pages 169 to 173 of its Report regarding the Grant of Protection to the Steel industry, 1924, and that the annual requirements for Government Railways for the six years ending with 1925-26 have been as shewn in paragraph 2 of the representation. The Tariff Board would be glad to know if the figure given in that paragraph are correct, and, if so, the circumstances which have led to the estimate framed by the Board in 1924, which was based on information supplied by the Railway Board, being so largely exceeded.
- (2) The statement that the inelasticity of the rules for the purchase of stores has prevented orders for locomotives and spare parts being placed with the Peninsular Locomotive Company (paragraph 7 of the representation). The Tariff Board would be glad to know how far the Railway Board consider this statement correct.
- (3) The statement that considerable progress has been made with the standardisation of types of locomotives (paragraph 9 of the representation). The Tariff Board would be glad to know exactly what progress has been made in this direction.

2. I am to ask whether in the opinion of the Railway Board the Peninsular Locomotive Company is sufficiently well equipped for the efficient and economic manufacture of locomotives.

3. I am to ask that the Tariff Board may be furnished with four copies if they are available, and, if not, with one copy of the Report on the enquiry into the Locomotive Industry referred to in paragraph 12 of the representation.

4. On the assumption that a case is made out for the grant of protection to the Locomotive Building Industry, the Tariff Board would be glad to have the views of the Railway Board as to the way in which this protection should be given. If it were to be given in the form of a bounty the Board would also be glad to have the advice of the Railway Board with regard to the principle on which the bounties should be given and the manner in which they should be administered.

5. I am also to enclose a copy of the questionnaire which has been addressed to the individual railway companies and to say that the Board would be glad if the Railway Board would be so good as to furnish answers to such of the questions as fall within the province of the Railway Board and are not likely to be covered by the information supplied by the Railway Board in response to paragraph 1 of this letter or by the railways in their replies to the questionnaire.

6. The Board would be grateful if the information asked for or so much of it as can be collected in the time, could be furnished by about the 30th June 1926, in order that it may be available for the public examination of the Peninsular Locomotive Company which has been provisionally fixed for the 8th July 1926.

Letter from the Tariff Board, to the "Palmer" group of Railways, dated the 7th June 1926.

I am directed to forward a copy of a representation submitted to the Tariff Board by the Tata Iron and Steel Company in connection with the present

statutory enquiry into the question of the continuance of protection to the Steel Industry and to invite attention to pages 7, 15 and 16 and to the note at slip A headed "Rail orders from the Palmer Group of Railways" where that company makes various allegations against the Palmer Railways. I am to say that the Board proposes to examine the representatives of the Tata Iron and Steel Company on these allegations in the course of the preliminary examination of the Company, which begins on the 14th instant, and to send to you relevant extracts from the evidence recorded. In order that the Tariff Board may be in possession of facts which may assist it in appreciating the point of view of the Palmer Railways, I am to request that you will be so good as to furnish the Board, in the first instance, with a written statement explaining the various points raised in the representation and the evidence of the Company. After the Board has received your written statement it may be desirable for the Board to examine the Agents of some of the Palmer Railways sometime between the 1st and the 15th of August, 1926, definite dates being fixed later. I am to ask if it would be convenient for you to appear before the Board in Calcutta at about that time in the event of such an examination being found necessary.

2. I am also to say that the Board would be glad if you would kindly inform it whether your consulting engineers have any representatives in India.

Copy of letter, dated the 24th June 1926, from the Agent of the Madras and Southern Mahratta Railway Company, Limited, to the Secretary, Tariff Board.

PROTECTION TO STEEL INDUSTRY.

I have the honour to acknowledge receipt of your letter No. 340, dated the 7th June 1926, regarding the representation of the Tata Iron and Steel Company, Limited, in connection with the present statutory enquiry into the question of the continuance of protection to the Steel Industry in India. I may mention that your letter was received in my office on the 11th instant, and due to my absence from Madras I have not been able to give it earlier attention.

I must explain that the matter is of great importance, and I am therefore unable to place before you an authoritative written statement without the approval of my Board.

I, however, forward for the information of the Tariff Board a copy of the draft statement which I have sent for my Board's approval. Until this statement is approved by my Board it must be understood that it represents only my personal views in the matter, and should not be considered as an official statement of the views of this Railway Company.

I much regret that I shall be unable to give evidence in Calcutta on the dates you mention, but I shall be pleased to do so on any date between the 19th and the 21st August 1926, if this will suit the Tariff Board's convenience.

Written statement of the acting Agent of the Madras and Southern Mahratta Railway Company, Limited, in connection with the representation of the Tata Iron and Steel Company, to the Tariff Board, regarding the continuance of protection to the Steel Industry in India.

The six year agreement between the Madras and Southern Mahratta Railway Company, Limited, and the Tata Iron and Steel Company, Limited, was entered into at the suggestion of the Steel Company and in the interests of the industrial development of India desired by Government.

In 1918 similar contracts were negotiated by Mr. Palmer for several railways. These contracts were for supplies commencing in April 1920 covering a period of six years. Under their contract the Madras and Southern Mahratta Railway undertook to obtain the whole of their requirements from the

Tata Iron and Steel Company up to the limit of the Steel Company's capacity to supply. The accompanying table shows that for no year were Messrs. Tatas able to supply our full requirements and the railway had to make contracts for supply from Europe; a portion of the requirements being obtained at abnormally high prices.

In 1922 Messrs. Tatas represented that the actual cost of manufacture was Rs. 158-14-0 per ton, and asked for an enhancement of the rate of Rs. 122-8-0 per ton settled under the terms of the six year contract. The representation of the Steel Company was examined by our Consulting Engineers and considered by my Board who were of opinion that no case had been made out for altering the rate in the original contract, and though the rate of Rs. 122-8-0 did not cover a full share of overhead cost, it more than covered actual working cost.

Our experience generally with long period contracts was unsatisfactory. In such contracts when market prices rise contractors claim a revision and when prices fall, as in the case of coal, the railway loses. On the completion of the six year contract, it was decided therefore to revert to the practice of making annual contracts. In pursuance of this decision, tenders were called for from the Tata Iron and Steel Company, Limited, in England for the supplies required in 1926-27.

We are at present using rails at four points, between Waltair and Rajahmundry, between Arkonam and Jalarpet, between Guntakal and Donakonda and between Poona and Miraj. On receipt of the English and Indian quotations and after adding in each case the cost of bringing the rails to site and in the case of English rails the import duty, it was found that Messrs. Tatas rails were the most economical at the first of these sites while English rails imported via Madras and Mormugao were the most economical at the other points.

The Tata Iron and Steel Company, Limited, as manufacturers have considered the price *ex-works*; as consumer the railway must consider the price at the point where rails will be used. Parts of the Madras and Southern Mahratta Railway system are at a great distance from Messrs. Tatas works involving heavy transport charges, but these points are close to sea ports.

This railway does not run through such wealthy countries as many of the railways in the North and to provide adequate service at rates suited to the district served it is essential that the railway be laid and worked as economically as possible. If the Railway is penalised for its geographical position at a distance from Tatas while deprived of the advantage of its geographical position close to important sea ports, this would, in the course of time, react on rates and prejudice the marketing of other of Messrs. Tatas Steel products in the south.

It appears that Messrs. Tatas have recognised the desirability of equalising the cost of rails at the point of consumption, and it is noted from their evidence that the Burma Railways were offered rails at Rs. 100 per ton while the offer to this Railway was at the rate of Rs. 105 per ton. Had the lower rate been offered to this line, it would have had an important effect on the comparative prices of English and Indian rails delivered at site. There would appear to be no reason why the average selling price *ex-works* should not be maintained, while securing orders for rails required at distant points by carrying this principle of considering actual cost to the consumer still further.

A further point which may be considered is that a large portion of this railway's present demand is exceptional; in part to make up for arrears occurring in the war period and in part to provide for a policy of increasing the capacity of the Railway by introducing heavier axle load, a very large programme of relaying has been undertaken within the last five years. The rails now being put in should last for 40 years, while all important sections will be relaid within the next 10 years. On completion of the present programme, there will be a long period during which the requirements of the railway will be small.

As regards quality the real test is wear, and we can say very little till the rails have been in the track some 20 years. When first laid there were indications of a more pronounced wear in Tatas rails than in English rails and we have had trouble owing to irregularity in section. We have accepted Tatas rails for delivery in the current year for relaying between Waltair and Rajahmundry; it is considered this is sufficient answer to Tatas statement that their rails are being condemned on account of process of manufacture. A statement showing breakages of Tatas and Home rails 90 and 60 lbs., during the last five years ending 31st March 1926 is enclosed. It will be noted that in all but 3 cases, they are stock rails, and this probably is accounted for by the special processes these rails are put through in making them in sets of points. In the other 3 cases 2 are Tatas and 1 Home rail.

In conclusion, with the protection afforded at present Messrs. Tatas rails can compete with foreign rails at a point about as far south as Gudur. A reduction of some Rs. 5 per ton in the price offered to this railway would enable them to compete at all points on the Broad Gauge.

Messrs. Tatas have been unable up to the end of 1925 to supply the full requirements of this railway; the present requirements of this railway are abnormally large. From the experience available, it is considered probable that Tatas rails will not wear as well as English rails. From Messrs. Tatas evidence they would appear to contemplate that more than one steel factory which would roll rails in India would develop in the future. It is to be hoped that of these future factories one will be in the south, in which case Messrs. Tatas sphere of influence would have about the same southern limit that it has to-day. Unless it is contemplated that Messrs. Tatas should have an absolute monopoly all over India, there would appear to be no reason for enhancing duties, so that Messrs. Tatas can compete at the points furthest from their work. The present duty enables Messrs. Tatas to compete with foreign rails over a very wide area, the fact that imported rails may be cheaper close to Ports when foreign prices are low, introduces a desirable factor of competition.

*Rails ordered and supplied by Messrs. Tata Iron and Steel Company
under the six years contract.*

Bull headed	90 lbs.
Flatfooted	90 lbs.
Flatfooted	60 lbs.

	1920-21 Tons.	1921-22 Tons.	1922-23 Tons.	1923-24 Tons.	1924-25 Tons.	1925-26 Tons.
Railway require- ment	9348-17	9909-33	12788-18	13826-38	19252-41	15872-851
Quantity supplied	3155-6448	6134-63	8635-47	6559-1375	17624-6775	15468-047
Shortage	6187-5252	3774-70	4152-71	7267-2425	1627-7225	404-807

Statement showing breakages of Tatas and Home rails 90 lbs. and 60 lbs. during the last 5 years ending 31st March 1926.

Official years.	Description of rails broken.	Length of each rail.	Tatas.	Home.	Date laid.	Date broken.	REMARKS.
1925-26	Left hand stock rail 60 lbs. F. F.	30'-4½"	Tatas	...	December 1923	1-10-1925	Due to flaw in metal.
	R. H. stock rail 90 lbs. F. F.	30'-0"	Do.	...	27-5-20	16-9-1925	Due to an old fracture in the web of the rail.
	60 lbs. F. F. Steel rail .	36'-0"	Do.	...	20-6-25	4-7-1925	Cracked at one end between bottom flange and web.
	L. H. stock rail 60 lbs. F. F.	30'-4½"	Do.	...	December 1923	1-10-1925	Due to flaw in metal.
	R. H. stock rail 90 lbs. F. F.	30'-0"	Do.	...	27-5-20	16-9-1925	Due to an old fracture in the web of the rail.
1924-25	Rail 90 lbs. F. F.	40'-0"	...	Home	1920	30-4-1924	Breakage is due to flaw in metal (1 ft. long by 2½").
1923-24	R. H. stock rail 90 lbs. F. F.	30'-0"	Do.	...	17-4-23	13-11-1923	Defect of manufacture.
	Stock rail 90 lbs. F. F.	30'-0"	Do.	...	17-4-23	17-7-1923	Flaw in bottom flange and web of rail.
	L. H. stock rail 60 lbs. F. F.	30'-4½"	Do.	...	23-12-23	23-12-1923	Crack occurred where stock rail has been cut to house the switch.
1922-23	Rail 90 lbs. F. F.	40'-0"	Do.	...	1920	13-3-1922	Old flaw in the rail (8" from end of the rail).
1921-22	Nil	...	...	...	...	...	.....

5. DIRECTOR, GEOLOGICAL SURVEY OF INDIA.

Letter from the Tariff Board to the Director, Geological Survey of India, dated the 17th April 1926.

I am directed by the Tariff Board to invite a reference to paragraph 3 of your letter, dated 12th January 1924, printed at page 85 of the First Report regarding the grant of protection to the Steel Industry, forwarding Dr. Fox's Report on the Mineral Resources of India, and to ask if you would kindly inform the Board whether the geological examination of the Raniganj and Jharia coalfields has been carried out, and if any conclusions as to the quantity of coking coal available in those two fields have been arrived at. I am also to enquire whether the fact that large quantities of coking coal are being consumed for purposes not connected with the manufacture of steel, was taken in account when the conclusion at the end of paragraph 13, page 89 of the same Report, was reached.

Letter from the Director, Geological Survey of India, dated the 30th April 1926.

I have the honour to acknowledge the receipt of your letter No. 163 of the 17th instant. The geological examination of the Raniganj coalfield was commenced last October, but is not yet completed. The examination of the Jharia coalfield has not yet been commenced, as the new topographical maps are not yet available. It is hoped to commence work in this area during the coming field-season. It will be at least a year—probably two years—before it will be possible to reach any reliable conclusions regarding the quantity of coking coal available in these fields.

2. With regard to your second question, my estimates of coal available for the metallurgical industry did not in a mathematical sense take account of the fact that some of it is being used, and will be used, for purposes other than metallurgical. It is impossible, as you will agree, to make any mathematical allowance for such a contingency. It is impossible to foresee how much of the coking coal is going to be used for railways and other non-metallurgical purposes. The Tata Iron and Steel Company, for instance, are actually selling, or, at any rate, offered to sell, some of their own coking coal to the railways.

3. My final statement on page 89, however, to the effect that "there is enough coking coal in India to supply the iron and steel industry with 4 million tons of metallurgical coke per annum for the next 150 years at least" was made, allowing a margin of 230 million tons. This is a very big margin, and was left for fires, accidents, over-head losses, depreciation in quality of seams, etc. It would, I think, also cover much of the coal which is at present owned by the railways. I did not, however, make any attempt to estimate the amount of coal which is likely to be consumed in this way. My idea was to base my statements on the coal available for the iron and steel industry, and to leave it to the Tariff Board to reduce the estimate as they thought fit in order to make allowances for any of the coking coal not being used for that industry. This they presumably did by reducing my period of 150 years to 100 years (see page 12, paragraph 20 (i)). As I have said, my statement on page 89 left a big margin, which would, I think, cover quite a lot of the coal used for non-metallurgical purposes. My object was to give a conservative estimate, and the probability is that when we know more about the total quantity of first-class coking coal in India, it will be possible to extend my period of 150 years.

4. It is perhaps unnecessary for me to point out how extremely difficult it is to make any definite statements about the subject at all, not only from want of knowledge, but from complications regarding the subject itself. I can explain what I mean best by giving you an example. The Kargali seam of the Bokaro coal-field yields a very hard coke, which would be eminently suitable for metallurgical purposes, were it not for its high ash percentage;

by mixing it with a coal whose coking properties may be very inferior but whose ash percentage is low, it might be possible to utilize the whole of the Kargali seam for the manufacture of metallurgical coke. The same thing applies to the Assam coal, which yields a first-class coke, but for the fact that there is too much sulphur. It is extremely difficult to know where to draw a line and when to include such seams as the Kargali seam in one's estimates, but facts justify, I consider, my statement on page 89 of the Tariff Board Report.

Letter from the Tariff Board, to Messrs. Geo. Service and Co., Balmer Lawrie and Co., Richardson and Cruddas, Burn and Co., Jessop and Co., Anandji Haridas and Co., Mr. G. B. Trivedi and the Bombay Iron Merchants Association, dated the 17th April 1926.

I am to say that the Tariff Board have been directed to re-examine the question of protection for the Steel Industry. During their enquiry the prices of steel will have to be fully investigated and I am therefore to ask if you would be kind enough to supply the Board with six copies of a statement giving the c.i.f. sterling prices-market prices,* month by month, from May 1925 upto April 1926, of the following kinds of rolled steel:—

- British beams.
- British angles.
- British bars.
- British plates $\frac{1}{2}$ inch thick and upwards.
- British galvanised corrugated sheets.
- British black sheets.
- Continental beams.
- Continental angles.
- Continental bars.
- Continental plates.
- Continental black sheet.

If you are unable to give the prices of all of these kinds, the Board would nevertheless be glad to have the prices of as many kinds as possible.

2. In addition I am to request you kindly to supply a monthly statement containing the information set out above from the month of April onwards until the conclusion of the Board's enquiry.

* To Messrs. Anandji Haridas & Co., Mr. G. B. Trivedi, and the Bombay Iron Merchants Association.

Letter from Messrs. Balmer Lawrie and Company, Limited, dated 24th April 1926.

With reference to your memo. No. 164 of the 17th instant, we have pleasure in sending herewith 6 copies of statement giving the c.i.f. sterling prices per cwt. from May 1925 to April 1926.

We will, as you request, supply a monthly statement on and from to-day containing the information given in the enclosed statement.

1925.

1926.

	May.	June.	July.	August.	Septem- ber.	October.	Novem- ber.	December.	January.	February.	March.	April.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Br. Joists . . .	8 15 0	8 10 0	8 7 6	8 6 6	8 5 0	8 0 0	7 12 6	7 10 0	7 10 0	7 10 0	7 10 0	7 10 0
Br. Angles . . .	8 15 0	8 10 0	8 7 6	8 7 6	8 5 0	8 0 0	7 12 6	7 10 0	7 10 0	7 10 0	7 10 0	7 10 0
Br. Bars . . .	9 5 0	9 5 0	9 0 0	8 17 6	8 12 6	8 12 6	8 12 6	8 12 6	8 12 6	8 12 6	8 12 6	8 15 0
Br. plates . . .	9 15 10	9 13 4	9 8 4	9 5 10	9 13 4	8 18 4	8 10 10	8 5 10	8 5 10	8 5 10	8 5 10	8 5 10
G. C. Iron . . .	17 15 0	17 12 6	17 10 0	17 12 6	17 17 6	18 0 0	18 0 0	18 0 0	18 0 0	17 12 6	17 12 6	17 0 0
Cont. Joists . . .	6 14 2	6 12 11	6 10 5	6 10 5	6 10 5	6 5 10	6 5 10	5 15 10	6 0 10	6 0 10	6 0 10	5 18 4
Cont. Angles . . .	6 18 4	6 15 10	6 15 10	6 13 4	6 10 10	6 10 10	6 10 10	6 3 4	6 5 10	6 8 4	6 8 4	6 3 4
Cont. Bars . . .	6 18 4	6 15 10	6 15 10	6 13 4	6 10 10	6 10 10	6 10 10	6 3 4	6 5 10	6 8 4	6 8 4	6 3 4
Cont. plates . . .	8 8 4	7 18 4	7 15 10	7 13 4	7 13 4	7 5 10	7 5 10	6 10 10	6 10 10	6 10 10	6 10 10	6 8 4

Letter from Messrs. Burn and Company, Limited, dated the 7th/10th May 1926.

With reference to your letter No. 164 of 17th April 1926, we enclose herewith 6 copies each of a statement showing c.i.f. sterling prices from May 1926 to March 1928, for British and Continental material as enumerated in your above quoted letter.

Kindly note that the prices for the month of April 1926 are not available at present.

As requested we are arranging to forward a monthly statement of prices as they fall due.

British.

	Ship Plates.	Sheets 1/8".	Angles.	Flats 5" and over.	Rounds 3" to 5½".	Joists.	"Castle" Brand Galvd. Corrg. Sheets 22/24 G. per ton c.i.f., Calcutta.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
May 1925 . . .	9 12 0	11 12 3	8 12 0	9 4 6	10 7 0	8 12 0	17 12 6
June 1925 . . .	9 11 6	11 8 6	8 10 1	9 0 9	10 3 4	8 10 1	17 12 6
July 1925 . . .	9 0 0	11 7 3	8 7 3	8 18 3	9 14 1	8 7 3	17 12 6
August 1925 . . .	9 5 9	11 7 3	8 4 2	8 14 2	9 12 1	8 4 2	17 8 8
September 1925 . . .	9 0 9	11 7 3	8 1 7	8 12 3	9 12 1	8 1 7	17 10 7
October 1925 . . .	8 17 0	11 7 3	7 16 5	8 9 0	9 4 0	7 16 5	17 15 6
November 1925 . . .	8 9 6	11 3 5	7 11 3	8 1 11	9 2 0	7 11 3	18 0 0
December 1925 . . .	8 1 11	10 12 2	7 6 11	8 5 0	8 17 0	7 6 11	17 19 6
January 1926 . . .	8 1 11	10 9 6	7 6 11	7 16 11	8 17 0	7 6 11	17 17 6
February 1926 . . .	8 1 11	10 7 2	7 6 11	7 16 11	8 17 0	7 6 11	17 9 11
March 1926 . . .	8 1 11	10 7 2	7 6 11	7 16 11	8 17 0	7 6 11	17 7 5

Continental.

	Ship plates.	Steel sheets 1/8".	Steel Bars.	Steel Angles.	Joists.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
May 1925	7 19 6	8 1 3	6 7 6	6 7 0	6 0 9 per ton c.i.f. Cal.
June 1925	7 15 4	8 0 10	6 6 3	6 6 3	6 0 4
July 1925	7 17 2	7 19 8	6 7 10	6 7 10	6 2 0
August 1925	7 17 2	7 15 0	6 6 2	6 6 4	6 0 3
September 1925	7 14 2	7 12 8	6 4 0	6 4 0	5 19 6
October 1925	7 9 8	7 9 9	6 3 2	6 3 2	5 18 0
November 1925	7 2 5	7 4 0	5 19 2	5 18 11	5 12 2
December 1925	6 12 0	6 13 4	6 0 1	5 19 7	5 12 3
January 1926	6 14 3	6 16 3	6 1 8	6 1 8	5 13 2
February 1926	6 13 8	6 15 3	6 0 10	6 0 10	5 13 2
March 1926	6 11 9	6 14 0	5 19 8	5 19 8	5 11 9

437

*Letter from Messrs. Richardson and Cruddas, Bombay, dated 23rd April
1926.*

We thank you for your letter No. 164 of the 17th instant, and have pleasure in sending you herewith six copies of the sterling c.i.f. prices of British and Continental steel from May 1925 to March inclusive.

We will let you have a monthly statement showing future prices as requested.

	BRITISH.						CONTINENTAL.				
	Beams.	Angles.	Bars.	Plates.	Galvanised Corrugated sheets.	Black sheets.	Beams.	Angles.	Bars.	Plates.	Black sheets.
1925	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
May . . .	8 7 0	8 7 0	8 19 0	9 9 0	17 3 8	...	6 11 8	6 16 6	6 16 6	8 0 10	...
June . . .	8 7 0	8 7 0	8 19 0	9 7 2	17 1 3	...	6 10 6	6 15 3	6 15 3	7 19 8	...
July . . .	8 4 6	8 4 6	8 16 8	9 4 9	16 17 6	...	6 10 6	6 14 0	6 14 0	7 18 6	...
August . . .	8 2 4	8 2 4	8 14 3	9 2 0	17 7 0	...	6 6 9	6 11 8	6 11 8	7 12 4	...
September . . .	8 2 4	8 2 4	8 14 3	9 2 0	17 7 0	...	6 2 0	6 7 0	6 7 0	7 7 9	...
October . . .	7 16 0	7 16 0	8 8 3	8 13 2	17 6 0	...	6 0 8	6 4 4	6 4 4	7 1 4	...
November . . .	7 8 8	7 8 8	8 0 9	8 8 2	17 8 0	...	5 11 8	5 19 9	5 19 8	6 11 8	...
December . . .	7 8 8	7 8 8	8 0 9	8 3 4	17 8 0	...	5 12 2	5 19 9	5 19 6	6 6 9	...
1926											
January . . .	7 8 8	7 8 8	8 0 10	8 3 4	17 3 8	...	5 17 0	6 1 10	6 1 10	6 6 9	...
February . . .	7 8 8	7 8 8	8 0 10	8 3 4	16 16 4	...	5 17 0	6 1 10	6 1 10	6 6 9	...
March . . .	7 6 3	7 6 3	7 18 6	8 0 10	16 14 0	...	5 18 3	6 4 4	6 4 4	6 6 9	...

Letter from Messrs. Jessop & Co., Ltd., dated 11th/14th May 1926.

In attention to your letter No. 164, dated the 17th April 1926, we send you enclosed six copies of our c.i.f. sterling costs month by month from May 1925 up to April 1926 of the various kind of rolled steels specified by you. Further costs will be quoted as soon as they come to hand.

Statement of approximate c.i.f. Sterling cost of steel sections from May 1925 to April 1926.

	May 1925.	June 1925.	July 1925.	August 1925.	September 1925.	October 1925.	November 1925.	December 1925.	January 1926.	February 1926.	March 1926.	April 1926.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<i>British.</i>												
Beams	8 8 0	8 9 6	8 7 0	8 7 0	8 2 0	7 18 0	7 18 0	7 7 0	7 7 0	7 7 0	7 7 0	7 9 6
Angles	8 8 0	8 9 6	8 7 0	8 7 0	8 2 0	7 18 0	7 18 0	7 7 0	7 7 0	7 7 0	7 7 0	7 9 6
Bars	8 8 0	8 9 6	8 7 0	8 7 0	8 2 0	7 18 0	7 18 0	7 7 0	7 7 0	7 7 0	7 7 0	7 9 6
Plates	9 10 0	9 15 0	9 10 0	9 7 6	9 5 0	8 15 0	8 16 0	8 10 0	8 10 0	8 5 0	8 5 0	8 5 0
Galvanised Corrugated Sheets.	17 5 0	17 2 6	17 2 6	17 2 6	17 17 6	17 17 6	17 17 6	17 12 6	17 12 6	17 7 6	17 7 6	16 12 6
Black Sheets . . . . .	...	...	...	...	...	11 5 4	...	...	...	...	...	...
<i>Continental.</i>												
Beams	6 8 0	6 10 6	6 9 6	6 9 6	6 5 6	6 2 6	5 17 0	5 15 0	6 0 0	5 19 6	5 18 6	5 17 0
Angles	6 15 0	6 14 0	6 11 6	6 10 6	6 6 6	6 9 6	6 2 0	6 2 0	6 5 6	6 6 6	6 5 0	6 0 0
Bars	6 15 0	6 13 0	6 11 6	6 10 6	6 6 6	6 9 6	6 2 0	6 2 6	6 6 0	6 6 6	6 4 6	6 0 0
Plates	7 15 0	7 15 0	7 12 6	7 10 6	7 3 6	7 1 6	6 11 0	6 7 6	6 10 0	6 10 0	6 8 6	6 5 6
Black Sheets . . . . .	...	...	...	...	...	...	10 15 0	10 6 8	...	9 13 5	...	...

CALCUTTA;
The 11th May 1926.

Letter from Messrs. Anandji Haridas and Company, dated the 20th May 1926.

With reference to your letter No. 165 of the 17th April 1926, we beg to enclose herewith 6 copies of statements giving c.i.f. sterling prices (statement A) and 6 copies of Calcutta market prices (statement B) for beams, angles, bars, plates $\frac{3}{8}$ " , plates $\frac{3}{16}$ " paid up, black sheets and G. C. sheets, ruling from May 1925 to April 1926.

The monthly statements of subsequent months will follow in due course.

STATEMENT A.

Sterling prices c.i.f. Calcutta for Continental Material.

Material.	May 1925.	June 1925.	July 1925.	August 1925.	September 1925.	October 1925.	November 1925.	December 1925.	January 1926.	February 1926.	March 1926.	April 1926.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Joists . . . . .	...	6 10 0	6 9 0	6 10 0	6 4 0	6 2 0	5 18 0	5 19 0	5 17 0	5 19 0	5 19 0	5 12 6
Angles	6 15 0	6 12 6	6 12 6	6 0 0	6 5 0	6 6 0	6 2 0	6 1 0	6 3 0	6 3 0	6 8 0	6 5 0
Bars	6 15 0	6 12 6	6 12 6	6 8 4	6 5 0	6 4 6	6 0 10	6 1 6	6 2 6	6 2 6	6 3 0	6 5 0
Plates $\frac{1}{8}$ "	8 10 0	8 5 0	8 2 6	8 0 0	7 12 6	7 10 0	7 2 0	6 18 0	6 17 0	6 19 0	6 18 6	6 13 0
Plates $\frac{1}{16}$ "	8 0 0	7 15 0	7 12 6	7 7 6	7 2 6	7 0 0	6 19 0	6 6 0	6 10 0	6 5 0	6 5 0	6 5 0
Black Sheets	11 7 6	11 5 0	11 0 0	11 2 6	11 5 0	11 2 6	10 5 0	10 0 0	10 0 0	10 0 0	9 12 6	9 0 0
Galvanized Corrugated Sheets.	17 12 6	17 2 6	17 2 6	17 5 0	17 7 6	17 12 6	17 12 6	17 17 6	17 16 3	17 12 6	17 5 0	17 2 6
	17 11 3	17 2 6	17 2 6	17 7 6	17 12 6	17 12 6	17 17 6	17 16 3	17 12 6	17 6 3	17 0 0	17 0 0
											16 13 9	

STATEMENT B.

Calcutta Retail Prices for Continental Material.

Material.	May 1925.	June 1925.	July 1925.	August 1925.	September 1925.	October 1925.	November 1925.	December 1925.	January 1926.	February 1926.	March 1926.	April 1926.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Beams	6 6 0	6 0 0	6 0 0	6 0 0	6 0 0	6 0 0	6 0 0	5 0 0	5 0 0	5 0 0	4 12 0	5 0 0
Angles	7 8 0	7 4 0	7 4 0	6 12 0	4 12 0	6 10 0	6 10 0	6 10 0	6 8 0	6 6 9	6 6 0	6 2 0
Bars	7 0 0	6 12 0	6 12 0	6 12 0	6 12 0	7 0 0	7 0 0	6 14 0	6 14 0	6 14 0	6 10 0	6 4 0
Plates $\frac{3}{8}$ "	7 8 0	7 4 0	7 6 0	7 2 0	7 4 0	7 12 0	7 4 0	6 14 0	6 12 6	6 4 0	5 10 0	5 8 0
Plates $\frac{5}{16}$ and up	7 6 0	7 2 0	7 2 0	7 2 0	7 2 0	6 14 0	6 14 0	6 14 0	6 6 0	6 0 0	6 0 0	5 8 0
Galvanized Corrugated Sheets.	14 12 0	14 12 0	14 10 0	14 12 0	14 14 0	16 2 0	16 0 0	15 0 0	14 12 0	14 2 0	14 10 0	14 0 0
Black Sheets	8 1 0	8 4 0	8 6 0	8 4 0	8 6 0	8 6 0	6 4 0	7 14 0	7 12 0	7 14 0	7 14 0	7 8 0

. N.B. --Price may be 0-4-0 per cent. lower than the above figures, when material is sold in lots and for payment before delivery.

Letter from Messrs. Anandji Haridas and Company, Calcutta, dated 7th June 1926.

With reference to your letter No. 204 of 6th ultimo, we beg to give below May prices of the steel articles in question:—

Articles.	Sterling c.i.f. prices.	Local retail prices.	
		Rs.	A. P.
Joist	Remained unchanged	5	6 0
Bars	Ditto	6	8 0
Angles	Ditto	6	6 0
Plates $\frac{3}{8}$ "	Ditto	5	10 0
Plates $\frac{1}{2}$ " and up	Ditto	5	8 0
Black sheets $\frac{3}{8}$ sheets	Ditto	7	12 0
	£ s. d.		
G. C. sheets	17 2 6	14	4 0

The retail prices as shown above may be 0-4-0 per cwt. less when the article is sold in lots and for payment before delivery.

Letter from Messrs. Geo. Service and Company, dated the 8th May 1926.

We are obliged by your letter No. 164 of the 17th ultimo, and as desired attach 6 copies of the c.i.f. sterling prices for Continental R. S. sections from May 1925 until April 1926.

Continental.

—	Beams.	Angles.	Bars.	Plates.
1925.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
May	6 11 8	6 16 6	6 16 6	8 0 10
June	6 10 6	6 15 3	6 15	7 19 8
July	6 10 6	6 14 0	6 14 0	7 18 6
August	6 6 9	6 11 8	6 11 8	7 12 4
September	6 2 0	6 7 0	6 7 0	7 7 9
October	6 0 8	6 4 4	6 4 4	7 1 4
November	5 11 8	5 19 9	5 19 6	6 11 8
December	5 12 2	5 19 9	5 19 6	6 6 9

	Beams.	Angles	Bars.	Plates.
1926.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
January	5 17 0	6 1 10	6 1 10	6 6 9
February	5 17 0	6 1 10	6 1 10	6 6 9
March	5 18 3	6 4 4	6 4 4	6 6 9
April	5 17 0	6 4 4	6 4 4	6 6 9

All prices are C. I. F. Bombay.

Telegram from the Tariff Board, dated the 12th May 1926, to the Peninsular Locomotive Company, Limited, Messrs. Burn and Company, Limited, The Indian Standard Wagon Company, Limited, and Messrs. Jessop and Company, Limited.

Please send c.i.f. prices imported axle boxes and other railway castings used by you during last three years and also if you have purchased locally manufactured castings furnish prices paid.

(1) *Letter from the Peninsular Locomotive Company, Limited, Bombay, dated 13th May 1926.*

We beg to acknowledge your two telegrams, dated 11th and 12th May, as follows:—

“ 230 your letter thirtieth April. If you desire continuance of protection for wagon building industry submit by fifteenth instant representation according to paragraph two Board’s Communiqué.

“ 237 Please send c.i.f. prices imported axle boxes and other railway castings used by you during last three years and also if you have purchased locally manufactured castings furnish prices paid.”

We beg to confirm having sent a reply to these as follows:—

“ Tarboard, Shillong. We acknowledge your two wires. Have little to add regarding wagons to statement submitted in August 1925 but preparing supplementary note as desired stop. Prices of imported parts being listed will be sent shortly.”

A statement with regard to the wagon industry was not sent by this Company as the Directors of the Company still consider that the primary object of this Company is to manufacture locomotives. The other reason was that a comparative statement of costs covering the whole period since the first report cannot be sent by this Company, whose operations have only started recently. All the same a brief resumé of the grounds, on which the continuance of protection to wagon industry is desirable, and the form in which such protection should be given, is being prepared and will be despatched as early as possible.

Since receipt of a press communiqué, dated 6th May 1926, certain cables have been exchanged with our Chairman in London and we trust you will condone the delay of a few days in submitting our statement.

In connection with your second wire the prices available are only those applying to the first order of five hundred wagons for the Great Indian Peninsula Railway. This list will be sent to you, as desired, as early as possible.

(2) *Letter from the Peninsular Locomotive Company, Limited, dated the 19th May 1926.*

We beg to invite reference to your telegram No. 237, dated 12th instant. In this connection we beg to give below the prices paid by us as desired by you:—

	Price		
	Rs. A. P.		
1. Cast steel axle boxes to I. R. C. A. specification with bronze bearings, etc., Complete journals 10" x 5", to drawing No. 16 and 17, each	41	12 3	c.i.f. Calcutta.
2. Solebar stiffening brackets, each	3	7 0	f.o.r. Tatanagar.
3. Brake blocks and cylinder carrier packing blocks, per cwt.	7	12 0	(from Calmoni Engineering Company).

The prices for the last item, which are now being paid, are Rs. 5-8-0 and Rs. 7-0-0 per cwt. respectively, the latter having the necessary holes drilled.

Please let us know if there is any other item of information that you desire.

Letter from Messrs. Jessop and Company, Limited, dated the 13th May 1926.

In attention to your telegram No. 237, dated the 12th May 1926, we quote as under the prices we paid for steel castings for wagons and bogie carriage underframes during the last three years.

	1924.	1925.	1926.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Cast steel axle boxes imported	18 1 0 each	18 1 0 each	18 12 0 each
Other steel castings for bogie underframes.	33 0 0	per cwt.	Local purchase.

We would mention we have since had a quotation of Rs. 14 per cwt. for the steel castings bought locally at Rs. 33 per cwt.

Letter from the Tariff Board to Messrs. Jessop and Company, Limited, dated the 17th May 1926.

In your letter, dated the 13th May 1926, sent in reply to the Tariff Board's telegram No. 237, dated the 12th May 1926, you give the price paid by you for imported cast steel axle boxes as Rs. 18-1-0 in the years 1924 and 1925, and as Rs. 18-12-0 in 1926, whereas your representation to the Board, dated the 24th July 1925, gives the price of an imported axle box as Rs. 54, *vide* page 306 of the Volume of Evidence recorded during the Enquiry regarding the Grant of Supplementary Protection to the Steel Industry. It is obvious that this price of Rs. 54 cannot be compared with those of Rs. 18-1-0 and Rs. 18-12-0, and that the former must include the cost of additional articles such as bearings, etc. I am directed to ask you if you will be kind enough to explain the matter to the Board by pointing out exactly the number of articles and their price, which were included in the quotation of Rs. 54 and

in those of Rs. 18-1-0 and Rs. 18-12-0. Please state whether the prices (in all cases) are c.i.f. or landed in India.

In the same letter you state that you have received "a quotation of Rs. 14 per cwt. for the steel castings bought locally at Rs. 33 per cwt." Please state the date of the quotation and of the local purchase. In enclosures IV and VI at pages 306 and 308 of the Evidence Volume referred to above the prices of both imported and locally purchased castings are stated to be Rs. 40 per cwt. The board will be glad if you will explain the apparent disparity between these prices and those now quoted.

Letter from Messrs. Jessop and Company, dated the 21st May 1926.

Referring to your letter No. 255, dated the 17th May 1926, we give below the information asked for.

The price of Rs. 54 each quoted in our representation to the Board dated the 24th July 1925 was for complete axle boxes of British make landed in India.

Each box consisted of:—

- 1 steel casting of axle box for 10" x 5" journal.
- 1 steel casting of lid for above.
- 1 bronze bearing for above.
- 1 upper pad for bearing.
- 1 dust shield.

All the above were machined and fitted ready for use.

We ordered complete axle boxes and have no record of separate prices for the components.

The prices Rs. 18-1-0 and Rs. 18-12-0 each quoted in our letter dated the 13th May 1926 were for steel castings of axle boxes and lids only without bearings, pads or dust shields.

These prices are for the goods landed in India.

The date of our order on Hukumchand's Steel Foundry for steel castings for bogie carriage underframes was 18th June 1924 and the rate was Rs. 33 per cwt. for rough castings.

The rate of Rs. 40 per cwt. referred to at pages 306 and 308 of the evidence volume dated 1925 was for steel castings machined where necessary.

The rate of Rs. 14 per cwt. for rough steel castings landed in India for bogie carriage underframes was taken from a tender dated April 15th, 1926, from the Henricot Steel Foundry, Belgium.

If the explanations given above are still incomplete we shall be pleased to supply any further information you may require.

Letter from the Tariff Board to the Government of India, Department of Commerce, Simla, dated the 6th May 1926.

I am directed to invite a reference to section 4 (3) of the Steel Industry (Protection) Act, 1924, as amended by the Steel Industry (Amendment) Act, 1926, and to enquire whether any notifications prescribing the conditions subject to which and the manner in which the bounties referred to in subsection (1) of the Act may be paid, have been issued by the Governor General in Council. I am also to enquire whether any such bounties have been paid to any Company firm or person not engaged in the manufacture of steel rails, fishplates or wagons at the time of the passing of the above mentioned Act, but whose operations have commenced since that date in the manner contemplated in section 5.

Copy of letter No. 298-T. (M)., dated the 29th May 1926, from Assistant Secretary to the Government of India to Secretary, Tariff Board.

I am directed to acknowledge the receipt of your letter No. 202, dated the 6th May 1926, in which you enquire—

- (1) whether any notifications under section 4 (3) of the Steel Industry (Protection) Act, 1924, as amended, have been issued, and
- (2) whether bounties have been paid to any Company, firm or person not engaged in the manufacture of steel rails, fishplates or wagons at the time of the passing of the Steel Industry (Protection) Act, 1924, but whose operations have commenced since that date in the manner contemplated in section 5.

2. As regards (1) I am to say that the matter is under consideration, and you will be informed when a decision has been reached. As regards (2) the Peninsular Locomotive Company, Limited, of Bombay, who have fulfilled the conditions laid down in section 5 of the Steel Industry (Protection) Act, 1924, will shortly be receiving bounties in respect of railway wagons, but as the first batch has not been paid for, no bounties have yet been received by them.

No application under section 5 has been received from any other firm or person.

**Correspondence with the Army Department of the Government
of India.**

(1) U. O. reference from M. G. S. Branch.

Ref. :—Department of Commerce ' Tariffs ' Resolution No. 260-T. (64), dated
3rd April 1926.

The Army is definitely interested in the Steel Industry in India, and you doubtless know the reasons, but I think there will be no harm in briefly stating them.

So long as a Steel Industry is working on a large scale in India Army Reserves do not need to be increased.

At present we have informal arrangements with Messrs. Tata & Co., whereby orders are to be placed on them on the date of mobilisation and they supply us with shell bar, commencing at the end of one month from zero day, at the rate of 280 tons monthly. This does not take into account Army railway steel requirements or feed of steel to subsidiary industries such as the making of pickaxes, mamooties, etc.

If the steel industry, for any reason, ceased to function it would be necessary for Army Reserves to be largely increased, or alternatively for plant to be provided to meet war requirements. Such plant would stand idle in peace.

The Secretary, Tariff Board,
through
The Secretary, Army Department.

(Sd.)

M. G. S.

U. O. I. No. 1153 (M. G. I. B.), dated 28th April 1926.

(Sd.) G. BURDON.

11th May 1926.

A. D. U. O. No. 1819-A.-II, dated 12th May 1926.

Secretary, Tariff Board.

*Letter from the Tariff Board, to The Master General, Supply Branch, Army
Headquarter, Simla, dated the 20th May 1926.*

I am directed to acknowledge receipt of your unofficial note No. U. O. I. 1153 (M. G. I. B.), dated the 28th April 1926, and in reply to enquire whether the Army is also interested in the subsidiary steel industries which are concerned with the production of steel castings, spring steel, steel fencing and other wire, tinplates, and the like. The Board, therefore, would be glad if you would kindly address them on the subject of the supply in war-time of these articles and would like to know if you have any informal arrangements, similar to the one you have with the Tata Iron and Steel Company, with any manufacturers who produce them.

(2) *Letter, dated 31st May 1926, from Director of Ordnance Factories and Manufactures, Army Headquarters, India, to the Secretary, Tariff Board.*

Ref. Your No. 260, dated 20th May 1926.

The matter will be followed up more fully by the recently formed Principal Supply Officers Committee and its various Sub-Committees. You would naturally be kept informed of Army War requirements by this Committee.

2. *Tinplate.*—We have tested the tinplate made by the Tinplate Company, Jamshedpur, and this material has been approved as a War time substitute for ammunition boxes. No definite arrangement for use of this in war has, however, been made with the firm so far. Our total tinplate demand is very large.

3. *Steel Castings.*—Steel castings of a large size we would make for Army requirements in our works at Ishapore. Small steel castings cannot be touched by our plant, but at present the total Army demand is small. We are keeping in touch on the matter with Messrs. Hukumchand and Company, who appear to have the only likely plant. The quality of this firm's casting is however not really satisfactory yet.

4. *Wire.*—Wire suitable for fencing and other purposes. There is a large Army demand for this both barbed and plain. We have no informal agreements on this point.

5. *Wire Ropes.*—There is an appreciable Army demand for wire rope. The major part is, however, of special quality for which there is unlikely to be an Indian trade demand.

6. *Chains.*—There is an appreciable Army demand particularly in war for light chain.

7. Pending the operation of the Principal Supply Officer's Committee we are not in a position to give any idea of the size of demands.

Letter from the Tariff Board, to the Director of Ordnance Factories and Manufacture, The Master General, Supply Branch, Army Headquarters, Simla, dated the 15th June 1926.

I am directed by the Tariff Board to invite your attention to the attached copy of the correspondence beginning with your U. O. I. No. 1153 (M. G. I. B.), dated the 28th April 1926, and ending with your letter No. 1153/4 (M. G. I. B.), dated the 31st May 1926, and to say that the Board attaches very considerable importance to the questions relating to the Army war requirements of steel and of various steel articles and will be glad to receive any available information on this subject. In your letter of the 31st May 1926, you say that the matter will be followed up more fully by the recently formed Principal Supply Officers Committee and its various sub-committees and that the Board will be kept informed of Army war requirements by this Committee. The Board is not aware whether this Committee has yet begun to function and as any information, which is to be of assistance in the present Statutory Steel enquiry, must reach the Board by the end of August, I am to ask you kindly to pass on this correspondence to the Principal Supply Officers Committee with a request that the Board may be furnished with any information available.

Letter from the Army Headquarter, India, Master General of Supply Branch, Simla, to the Tariff Board, dated the 24th June 1926.

Reference:—Your No. 363, dated the 15th June 1926.

The principal Supply Officer's Committee (India) has begun to function but data accumulated is still scanty.

2. So far, however, we are in a position to give the following approximate figures:—

- (a) Army requirements in war of shell bar and mild steel for ordnance requirements will be for ordinary mobilisation. 65,000—68,000 cwts. monthly, of which 9,000 cwts. can be produced in Ordnance Factories and the balance obtained from the trade.
- (b) If further mobilisation occurs the preliminary estimate is a further 80,000 cwts. monthly of this class of steel.

This is, however, only a rough approximation.

3. We are not in a position to give you data over the following:—

- (1) Wire requirements including barbed wire.
- (2) Rail Steel.
- (3) Structural Steel.
- (4) Steel Castings.
- (5) Die and Spring steels.
- (6) Tool steels.

4. It is possible, though not likely, that very rough approximations could be given for (1), (2) and (3) by 15th August 1926, and if so, they will be communicated at once by sub-committee No. 2.

Letter, dated the 29th May 1926, from the Government of India, Department of Commerce, to the Tariff Board.

I am directed to invite the attention of the Tariff Board to Customs Ruling No. 4 of 1926 of the Central Board of Revenue, a copy of which was communicated to it with endorsement No. C.-272-Cus.-26, dated the 7th May 1926.

2. Under this Ruling, iron or steel wire, stranded, is assessable to customs duty at 10 per cent. *ad valorem* under No. 61 of the Statutory Tariff if it is clearly of the kind known as fencing wire. Other kinds of stranded wire, such as galvanised iron seizing, are assessable under No. 149 at Rs. 60 per ton. The existing entries relating to wire were introduced in the Schedule in June 1924 in accordance with the recommendation contained in the Tariff Board's report regarding the grant of protection to the Steel Industry.

3. It appears from a letter from the Collector of Customs, Rangoon, dated the 17th April 1926, of which a copy is enclosed, that the specific duty of Rs. 60 per ton on stranded wire imported for purposes other than fencing causes a loss of revenue in that it works out to very much less than 10 per cent. *ad valorem* to which all wires were subject prior to June 1924. It is also probably the case that there is no Indian industry in stranded wire which requires protection.

4. I am to request that these facts may be brought to the notice of the Tariff Board in connection with their present enquiry into the Steel Industry.

Copy of letter No. 5118—1 A.-36, dated the 17th April 1926, from the Collector of Customs, Rangoon, to the Secretary, Central Board of Revenue, Simla.

Galvanised iron seizing wire.

Assessment of—

I have the honour to refer to your letter No. C.-272-Cus.-26, dated the 9th March 1926.

2. The values of the seizing wires in question are as follows:—

(a) The invoice value of $\frac{1}{16}$ " diameter (smaller sample) 21 S. W. G. is 10d. per lb. The landed cost inclusive of duty works out to about 10 annas per lb.

(b) The invoice value of $\frac{1}{8}$ " diameter (larger sample) 17 $\frac{1}{2}$ S. W. G. is 6d. per lb. The landed cost inclusive of duty is 6 annas per lb.

3. I am informed that the value of jade cutting $\frac{1}{16}$ " stranded wire is about Rs. 30 per cwt. cum duty but a very small amount is imported.