REPORT

OF THE

Indian Tariff Board

REGARDING THE

GRANT OF PROTECTION

TO THE

SHIP-BUILDING INDUSTRY

(Including the Evidence recorded during the Enquiry)

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	Rs.	A.	P.
(1) Salaries of members and staff	15,368	12	0
(2) Travelling allowance (including daily allowance)	2,540	11	0
(3) Printing	840	0	0
(4) Contingencies	330	2	0

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5. Evidence tendered by—

(1) The Irrawaddy Flotilla Company, Limited—

Written 29

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(2) The India General Navigation and Railway Company, Limited—

Written 71

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(3) The Shalimar Works, Limited—

Written 89

Oral 92

(4) Messrs. Burn and Company, Limited—

Written 104

Oral 115

(5) Messrs. John King and Company, Limited—

Written 143

(6) Chief Controller of Stores—

Written 144

Report.

Report of the Indian Tariff Board regarding the grant of protection to the Ship-building Industry.

Reference to the Board.

The Tariff Board were directed to examine the question of the import duties on imported boats, barges, flats and steamers and on the imports of shaped and fabricated parts for such vessels, by the Resolution of the Government of India in the Commerce Department, No. 221-T, dated the 28th March, 1925, which is printed below:—

> "In paragraph 16 of the second portion of the original Report regarding the grant of protection to the Steel Industry, the Tariff Board considered as a general conclusion that an increase in duties on unfabricated steel did not necessitate any increase in the duties on imported boats, barges, flats, steamers, etc. The Board did not arrive at any distinct finding as to the duties which ought to be imposed when such vessels were imported as shaped and fabricated parts for erection in India, as that question was not brought to the notice of the Tariff Board. This question is now referred to the Tariff Board for enquiry and report with special reference to a representation received from the Irrawaddy Flotilla Company that the general conclusion of the Tariff Board should be held to cover the imports of shaped and fabricated parts for such vessels.
>
> 2. Firms or persons interested in the above enquiry should address their representations direct to the Secretary of the Tariff Board."

No increase in the duty on ships proposed by the Tariff Board in 1924.

2. In paragraph 16 of their Second Report on the Grant of Protection to the Steel Industry, the Board wrote as follows:—

> "16. A considerable number of steamers, tugs, flats, barges, etc., are manufactured at present, principally at Calcutta and in Rangoon. The evidence we have taken suggests that in this branch of manufacture the engineering firms have little to fear from foreign competition and no serious complaints have been made. This may be due to the fact that the component parts of these vessels are bulky in proportion to their weight, and the freight payable on imported materials is therefore higher than in the case of ordinary structural steel. In effect, therefore, these products enjoy a certain degree of natural protection. We are not satisfied that there

are sufficient reasons at present for raising the 10 per cent. *ad valorem* duty in the case of vessels of this kind. It is possible of course that, with the increased cost of unfabricated steel, prices may rise to a level at which the foreign manufacturer would find it possible to compete. But there is no real evidence at present that the risk is great or imminent and we think the danger we have referred to must be dealt with specially when it arises."

It will be clear from this passage that the Board did not propose to increase the Customs duty on imported ships and they left the entry in the Tariff Schedule unchanged. This entry (statutory No. 64) reads as follows:—

"Ships and other vessels for inland and harbour navigation, including steamers, launches, boats and barges imported entire or in sections: Provided that articles of machinery as defined in No. 51 or No. 51A shall, when separately imported, not be deemed to be included hereunder."

Under this entry, which is exactly as it was before the Steel Industry (Protection) Act was passed, the steel hulls of vessels are subject to a duty of 10 per cent. and the machinery to a duty of 2½ per cent. Until 1924, "ships and other inland vessels" had always been subject to the same rate of duty as iron and steel, and so long as this was the case, it was a matter of indifference to all concerned whether the duty was levied on the hulls as 'ships' or as fabricated steel. It was not foreseen that, when the duty on fabricated steel was raised to 25 per cent. a question of interpretation might arise as to the meaning of the phrase 'entire or in sections.' The method of importation was not specially considered by the Board in the first enquiry, and the only firm, which gave evidence about ships, stated distinctly that imported vessels were dutiable under No. 64.

Ruling of the Central Board of Revenue.

3. Soon after the Steel Industry (Protection) Act became law, the Central Board of Revenue considered what rate of duty was applicable to the fabricated steel parts of ships, and on the 21st June, 1924, they issued the following ruling:—

"(1) *Plates and other fabricated steel materials being parts of a ship or vessel for inland or harbour navigation which has been dismantled for shipment*—Such ships and vessels, if imported entire or in sections, are liable to duty at 10 per cent., item 64 of the Import Tariff Schedule. In the opinion of the Board, if this phrase 'entire or in sections' is read as a whole, the word 'sections' cannot mean a collection of dismantled units, even if that collection is complete, but must be used in what is the ordinary dictionary sense, and also in the

sense, which it has in trade practice, namely, erected and complete divisions of a ship or vessel which are in themselves entire and have not been dismantled. With regard to the ordinary use of the expression 'sections' in the trade, the Board is satisfied from reference to catalogues of two British manufacturing firms, *viz.*, Messrs. Alley and MacLellan, Limited, Glasgow, and Messrs. Ritchie, Graham and Milne, Glasgow, that this word is used in the sense above given, the practice being to make these sections, which can be launched separately and fastened together in the water, for facility of transport and handling. It also appears that manufacturers quote separately for vessels made in sections in this manner and for vessels which have been dismantled with a view to the re-erection of the materials at their destination. Such dismantled elements of a ship or barge will be liable to duty at the proper rate under Parts IV, V and VII of the Import Tariff Schedule. It is believed that these parts will mostly consist of fabricated steel angles, or of fabricated iron or steel plates ⅛ of an inch thick or over, the rate of duty for both these articles being 25 per cent. *ad valorem*."

Effect of the ruling of the Central Board of Revenue.

4. The effect of the ruling of the Central Board of Revenue is that, unless the hulls of vessels are imported entire or in built-up sections which can be launched separately and fastened together in the water, the fabricated steel from which the hull is made is liable to a protective duty of 25 per cent. Small boats may occasionally be imported entire, but no vessel of any size could be imported in this way, while none of the shipbuilding or shipowning firms ever heard of a case in which a vessel has been imported into India in built-up 'sections'. When vessels are made abroad, the fabricated steel parts are erected in the builder's yard and are subsequently dismantled and shipped to India separately. What passes through the Custom House is a collection of fabricated plates, angles, beams, and sheets, and vessels are not imported in any other way. The result of the ruling, therefore, is that every inland vessel imported into India is subject to a protective duty which the Tariff Board did not recommend.

The Board's procedure.

5. Representations were made to the Government of India against the ruling of the Central Board of Revenue by the Irrawaddy Flotilla Company, Limited, and by the India General Navigation and Railway Company, Limited, and these representations have been referred to us. At the outset of our enquiry we drew up two questionnaires—(1) for the companies which desired the reduction of the duty to 10 per cent., and (2) for the engineering firms that build ships in India. Replies to the former were received from both the companies concerned, and to the latter from the Irrawaddy Flotilla Company, Limited, from Messrs. Burn and Company, Limited, from the

Shalimar Works, Limited and from Messrs. John King and Company, Limited. Representatives of all the companies except the last gave oral evidence in the first half of January, 1926. The Board are indebted to all of them for the full information supplied on points which seemed obscure or doubtful.

Scope of the enquiry

6. Since the circumstances of the case are somewhat unusual, it may be well to define at the outset exactly what the question is to which we have to find an answer. The shipbuilding industry has existed in India for many years and has been firmly established for at least a quarter of a century. In this line of work India's natural advantages are considerable, so great indeed that in the pre-war period, when steel and ships alike were free of duty, and the industry enjoyed no tariff assistance, it was able to capture a large part of the market which had previously been supplied from the United Kingdom. Shipbuilding work is of a kind which can be done cheaply and efficiently by Indian labour, and there are no physical reasons why, in course of time, the whole of the country's needs should not be supplied by Indian firms. The industry has strong claims to assistance, if assistance be needed, for it is a branch of the steel industry, which the Legislature has decided to protect. The Board refrained in 1924 from recommending a higher duty on imported ships, but it was influenced not by doubts whether shipbuilding in India ought to be encouraged, but by the feeling that a higher duty was unnecessary. The question on which they have now to advise is not whether the shipbuilding industry deserves protection but whether it needs it. If it can be shewn that, with a 10 per cent. duty, orders which are at present placed in India are likely to be placed abroad, then a case for a higher duty would be established. In the opinion of the Tariff Board the shipbuilding firms failed in the first enquiry to make out a case for a higher duty. It rested with them, therefore, in this enquiry to prove that a higher duty was needed by placing before the Board facts which were not brought to light in 1923, or by showing the circumstances have changed to their disadvantage since 1923. It is from this point of view that we have considered the case.

Evidence on behalf of the shipbuilding firms in the first enquiry.

7. We have reproduced in Appendix A an extract from the oral evidence given in the Board's first enquiry by Mr. A. Cochran on behalf of Messrs. Burn and Company, Limited, because it was his evidence which led the Board to believe that the Indian shipbuilder has little to fear from foreign competition. The following are the important points:—

(1) The great bulk of the inland vessels in India are to be found in (*a*) Bengal and Assam and (*b*) Burma. The demand of Western India is confined to the tugs and other harbour vessels needed at Bombay and Karachi.

(2) All the flats and barges and most of the steamships required for Bengal and Assam are made in India.

(3) In Burma more vessels are imported but Messrs. Burn and Company have sometimes succeeded in obtaining orders there also.

(4) Companies, which formerly imported river and harbour craft, now build or purchase them in India.

(5) The hulls of inland vessels can be made entirely in India out of Indian materials*. The boilers and engines of small launches can be made in India, but for all the larger vessels they are imported.

(6) Substantive protection was not asked for, but only an increase in the duty on imported vessels sufficient to compensate for the higher price the Indian builder would have to pay for his steel if steel was protected.

Strong position of the Indian shipbuilders in Bengal and Assam.

8. The natural inference to be drawn from Mr. Cochran's evidence was that for supplying the requirements of Bengal and Assam the position of the Indian shipbuilder was very strong indeed. At a time when steel and ships alike were free of duty†, the river steamship companies (some of which are British owned) began to make or buy in India vessels which they had been in the habit of importing. They would not have changed their policy in this way unless they could effect a substantial economy by doing so, for in such cases there is always the opposition of vested interests to be overcome. The fact that Messrs. Burn and Company had been able to obtain orders from Burma in competition with British firms is also significant. It would have been impossible to do this if their advantage in Bengal and Assam over the foreign builder had not been substantial, for either the vessel must be towed to Rangoon, and this is possible only for four months in the year, or else the material is erected in the shipyard at Calcutta, then dismantled and shipped to Burma and finally erected at destination. If the Calcutta firm can meet the cost of the freight to Rangoon and the double cost of erection, and still underquote the British builder, the latter stands no chance at Calcutta where the Indian builder has no extra freight to pay and the vessel is erected once only.

Evidence of the river steamer companies.

9. In this enquiry evidence was given, not only by three shipbuilding firms, but also by two river steamer companies. The Irrawaddy Flotilla Company stated that they built in

* This was Mr. Cochran's statement in 1923. It requires some qualification in the light of the evidence given in the enquiry. See paragraph 9.

† This was the case up to 1916.

Rangoon all their flats* and barges, and the smaller steam vessels up to 100 feet in length, but imported all their larger steamers, because they did not consider that they could be constructed satisfactorily in India. It was not only a question of price. The machinery had in any case to be imported, and it was a convenience to place the order for the hull and the machinery with the same firm. The home builders were familiar with the construction of the types of vessel required by the company and to place orders elsewhere would involve trouble and expense. Finally, the river water in Burma necessitated the use of galvanized material in the construction of the vessels, and there was no means in Rangoon of galvanizing plates and angles after they had been furnaced and shaped. Whatever the rates of duty might be, the Company would continue to build its flats and barges, and to import the larger steamers. The written evidence of the India General Navigation and Railway Company was to the same effect, except that this company does not use galvanized material in the hulls. In oral examination, however, it was explained that it was only when new or special types of vessel were required, that the order was invariably placed abroad. The first one or two vessels of a type would be designed and built in England, but if more vessels of the same type were needed they would be built in India in the Company's dockyard, provided it was not fully occupied with repair work and other construction. They could build a steamer of 300 feet in length, and had actually built steamers of 249 feet. The workmanship of the Indian built steamers was satisfactory, but not quite so fine as that of the imported vessels, and in India they had not the same facilities for light construction, a very important matter in river navigation. The result was that the Indian built vessel was a little heavier than the vessel built abroad.

Important points in evidence of the river steamer companies.

10. The evidence of the river steamer companies is important and brings out certain points clearly. They would not build all their flats and barges and the smaller power craft in India, unless it were cheaper to do so, and the Indian builder has nothing to fear from foreign competition, so far as these vessels are concerned. Steamers of the largest size in use on the Indian rivers can be and have been made

* *Extract from the Oral Evidence of Mr. K. MacGibbon recorded at Calcutta on Friday, the 8th January 1926.*

* * * * * * *

Mr. MacGibbon:—These (five cargo flats) were ordered in 1919 but they actually arrived and were put together in 1920. The reason for that is a particular one. At the end of the war we found ourselves faced with the position of being extremely short of flats. The Government had commandeered a great many of them. We were very short indeed and we found it necessary to build 11 flats in a hurry to meet our current needs. We could not, from the point of view both of space and time, construct the whole in our Dalla dockyard. We ordered five from home and we built six at our works in Rangoon. That was a particular case, however.

in India, but if it is advantageous to use galvanized material in the hulls (as is claimed by the Irrawaddy Flotilla Company), the steamer would have to be imported. Apart from the galvanizing difficulty, particular firms may prefer to place an order in England because there is a British builder who knows all their requirements, because the vessel is of a new or unusual type, or because light construction is of special importance. But there is no evidence at all that the British built steamer is the cheaper, and when an order is placed abroad it is not the price which is the decisive factor. The Irrawaddy Flotilla Company will continue to import its larger steamers whatever the rate of duty may be, for hulls of galvanized material cannot be made in India at present. Some steamers will also be imported by the river steamer companies whose vessels ply on the Ganges and the Brahmaputra, but the number is not likely to be great, and many of the larger vessels will be built in India. The Indian shipbuilder has to face competition from abroad in the case of the larger steamers, but it has not been shewn that the foreign builder can undersell him.

Little evidence of British builders obtaining orders because their prices were lower.

11. In the questionnaire addressed to the Engineering firms the following question was included:—

> "As a result of their first enquiry into the Steel industry the Tariff Board came to the conclusion that, in Bengal and Assam at any rate, there was a margin between the cost of manufacturing vessels in India and of importing them, and that the necessity of increasing the Customs duties on vessels and their component parts had not been established. Can you mention any facts not brought to the notice of the Board in their first enquiry which might have led them to take a different view?"

To this question all the firms who sent answers replied in the negative, and one shipbuilding firm—the Shalimar Works, Limited—added that they agreed with the Board's conclusion. In these circumstances attention was naturally concentrated during the oral examination of the witnesses on the changes which have occurred since 1923. The best evidence of the need for a protective duty would be the citation of actual cases in which the Indian builders failed to obtain an order because the price of the imported vessel was the lower. Very little evidence of this kind has been tendered. Messrs. Burn and Company referred to the purchase of two light vessels in England by the Port Commissioners in 1923, but this can hardly be taken as a typical case for the steel hulls of the vessels were to be sheathed in teakwood, and Mr. Cameron of the Shalimar Works informed us that he believed the order had been placed abroad because it was thought there would be difficulty in working the timber at the forward and after ends of the vessel. In this case the unfabricated steel in the hull accounted for only 16¼ per cent. of the total cost of the vessel, as against 33 or 34 per cent. in the case of flats and barges.

The Sukkur tugs.

12. The only other instance quoted was an order for two tugs for the Sukkur Barrage for which Messrs. Burn and Company tendered unsuccessfully in June, 1925. This case also cannot be regarded as typical for several reasons. The Calcutta engineering firms are at a disadvantage when the vessel ordered is to ply on the lower Indus, for it must first be erected in the shipyard on the Hooghly, then dismantled and dispatched by rail and finally erected at destination. The railway freight on the material to Sukkur would have amounted to nearly Rs. 11,000 and would have added 5 per cent. to the cost of vessel, but the additional cost occasioned by the double erection has not been ascertained. From the information supplied by the Chief Controller of Stores it would seem that the British tender was the lowest, but the exchange complication entered into the comparison of prices, and it is exceedingly difficult to get exact figures. The British tender was apparently for vessels complying in all respects with the published specifications whereas Messrs. Burn and Company submitted two alternative tenders in both of which the dimensions of the vessels exceeded those laid down. They could not guarantee the towing speed required except with a vessel 32 feet longer, 1½ feet broader and 6 inches deeper than the specified dimensions, and even the alternative vessel, of which the towing speed was not guaranteed, would have been 19½ feet longer. It is obvious that a vessel 132 feet long will contain much more steel than a vessel 100 feet long and the cost will be proportionately higher. The decisive factor, however, which led to the order being placed in England was not the price but the date of delivery. The tugs were ordered in July, 1925, and were to be delivered afloat at Karachi, one after 6 months and one after 7 months, whereas Messrs. Burn and Company could not undertake to complete the erection at Sukkur in less than 19 months after the order was received. It may be added that the Chief Engineer, Sukkur Barrage, informed us in February, 1926, that the material for neither of the tugs had yet passed through the Customs House, and as the erection at Karachi will take two or three months, the advantage expected from prompt delivery is likely to be illusory.

Depression in the Indian shipbuilding industry not due to foreign competition.

13. For the last three or four years the shipbuilding industry in India has been depressed and orders have been difficult to obtain, but the cause of the depression is the scarcity of orders and not foreign competition. Apart from the steamers purchased by the Irrawaddy Flotilla Company, which owing to the use of galvanized material cannot be made in India, and vessels of a special type such as the dredgers, which have been brought out since the war both to Calcutta and to Bombay, very few vessels have been imported. The India General Navigation and Railway Company, for example, has imported none since 1920. The river steamer companies indeed are finding it much more difficult than before the war to run their steamer services at a profit, and the replacement of obsolescent vessels is being postponed until conditions improve. In these circumstances, a protective duty on imported ships, if it raised the cost of steamers to purchasers in India, might be adverse to the interest of the shipbuilding industry itself because fewer orders are likely to be placed. The absence of foreign competition is of even greater significance from another point of view, for it confirms the impression that, so far as costs are concerned, the advantage is not with the foreign shipbuilder but with the Indian. No facts have been brought to light in this enquiry which invalidate the Board's conclusion that in shipbuilding the Indian engineering firms have an advantage which they do not possess in other kinds of fabricated steel work to the same extent. The evidence given does suggest, however, that the explanation put forward in the Board's original report, *viz.*, that the fabricated parts of ships are bulky in proportion to their weight and consequently pay a higher sea freight, may not be entirely correct and does not fully account for the facts. There are probably other factors which are more important.

Sea freight on fabricated steel parts of inland vessels.

14. The engineering firms, who gave evidence, denied that the fabricated steel parts of vessels, owing to the shape given to them, were more bulky in proportion to their weight than unfabricated steel and consequently chargeable with a higher sea freight. Mr. Balfour, on behalf of Messrs. Burn and Company, pointed out that only a small proportion of the plates required for a flat or barge were shaped, and that they would occupy very little more space in the hold of a ship than unfabricated plates. On the other hand, the Irrawaddy Flotilla Company pointed out that in a steam vessel there is a much higher proportion of shaped plates and angles than in a flat, and stated in their answers to the questionnaire that the fabricated parts of ships were more bulky and more liable to damage than unfabricated and that the actual freight paid by them was £3 a ton. The sea freight on unfabricated steel imported from the United Kingdom is £1-2-6 a ton, so that if the fabricated parts of vessels invariably paid £3 a ton, the Indian builder would have an advantage of £1-17-6 (=Rs. 25) a ton in that respect alone. The point is of some little importance and we endeavoured to ascertain the freight paid on fabricated parts of vessels imported into Calcutta, but none of the Calcutta firms could give us the information. It is difficult in these circumstances to arrive at a definite finding, but we think the evidence justifies the following conclusions:—

(1) It is possible that the freight on the fabricated material for flats and barges may be as low as the freight on unfabricated steel, but the point is of little importance for such vessels are seldom imported.

(2) It is probable that the fabricated steel parts of steamships and other power craft are on the average more bulky in proportion to their weight than unfabricated steel and

more liable to damage. The sea freight on such parts may be higher than on unfabricated steel.

(3) According to the evidence of the Irrawaddy Flotilla Company, the high freight of £3 a ton on the shipwork imported by them is due not only to the bulkiness and liability to damage of the parts, but also to the fact that much of the material is galvanized and consequently has a high value. The Company give the cost of the fabricated steel they import as from Rs. 720 to Rs. 840 a ton.

Cost of imported vessels increased by necessity of erecting twice.

15. There is another reason more important than any difference in sea freight, which to some extent explains why the Indian shipbuilder has an advantage over his rival abroad. The foreign builder erects the vessel in his own yard and dismantles it again before shipment, while on arrival in India it must be erected a second time. The Calcutta builder, when the vessel is to be used in Bengal or Assam, and the Rangoon builder, when it is to be used in Burma, erects the vessel once only and it is then ready for launching. The double cost of erection is a serious addition to the foreign builder's costs. We do not suggest that the whole cost of erection in India has to be met twice over when a vessel is imported. When a vessel intended for India is erected in a foreign yard, the parts would be bolted together and comparatively little rivetting would be done, and it is to be remembered that the Indian cost of erection includes the fitting of the timber work which is purchased locally. But even when allowance is made for these items, the balance must be substantial. It would have assisted us in our enquiry if it had been possible to estimate the addition to the foreign builder's costs necessitated by erecting a vessel twice, but none of the river steamship or engineering firms could give us even an approximate figure, nor could we obtain from the latter the difference between the erection charges on a vessel intended for use in Bengal and the same charges on a similar vessel intended for use in Burma. In these circumstances, no estimate can be made.

Changes since 1923.

16. In three respects the position of the Indian shipbuilder is weaker now than it was in 1923. In the first place, the protective duties on steel raised the cost of the fabricated parts of ships by about Rs. 17-8-0 a ton. The Board did not consider, however, in 1924 that this fact justified a higher duty on imported ships. In the second place, there has been a marked fall in the rupee price of unfabricated steel, ascribable in part to a reduction in the sterling price of steel, and in part to the rise in the sterling value of the rupee from 1*s.* 4*d.* to 1*s.* 6*d.* This fall in the price of steel affects the Indian and the foreign shipbuilder alike and is no disadvantage to the former, save in so far as it increases the disparity between the protective duties and a 10 per cent. rate. In 1923, the duty on

plates and structural sections was Rs. 15 a ton but would not in 1926 be more than Rs. 12 a ton. The result is that the protective duty of Rs. 30 a ton on these kinds of steel exceeds the 10 per cent. duty not by Rs. 15 but by Rs. 18. The Indian shipbuilder therefore pays about Rs. 20 more per ton of unfabricated material than he would do if the duty were 10 per cent. and his position is worse than it was in June 1924 by Rs. 2-8-0 a ton. In the third place, the rise in the rupee sterling exchange reduces the foreign shipbuilder's fabrication and erection costs by 11 per cent. This is really the only change in the circumstances which might justify a higher duty than 10 per cent. on the hulls of ships and other inland vessels and must be considered in detail.

C.i.f. price of fabricated steel work in imported vessels not ascertainable.

17. When the question of additional protection for the engineering industry generally was under consideration, one of the difficulties was that the British cost of fabrication was unknown, and the advantage which the British engineering firm derived from the rise in the exchange could not be calculated precisely. But in that case a near approximation was possible and the difficulty could be overcome. The actual c.i.f. prices at which bridgework had been imported into India were known, and the approximate cost of the unfabricated steel used by the manufacturer could be determined. The balance left when the latter figure is deducted from the former can fairly be taken as the British cost of fabrication in this sense, that it is the sum which the engineering firm receives to cover all charges after the cost of the raw material has been met. It would be natural to apply the same method to the fabricated steel parts of ships, but unfortunately the essential figure is wanting. In paragraph 64 of the Board's Report on the Grant of Supplementary Protection to the Steel Industry, it was estimated that in July, 1925, the c.i.f. price of imported fabricated steel was about Rs. 205 a ton, bridgework being rather more expensive and other kinds of steel somewhat cheaper. But this figure cannot be applied to shipwork. Much more work is done on the material in a steamship or other power craft than on the material in a bridge, and the cost of fabrication must be substantially higher. Before any calculations can be made, the actual price per ton at which the hulls of inland vessels are imported must be ascertained, and this has proved to be impossible. The only evidence tendered on this point is the statement of the Irrawaddy Flotilla Company that the c.i.f. price of the shipwork they import is from Rs. 720 to Rs. 840 a ton. If these figures could be taken as typical, it would be certain that protection was unnecessary, for they are more than double the Indian cost of shipwork as given by Messrs. Burn and Company. The whole comparison is vitiated, however, by the fact that the Irrawaddy Flotilla Company's price is increased substantially by the high proportion of galvanized material used. The approximate c.i.f. price per ton of ungalvanized fabricated steel work in the hull of an imported vessel cannot be determined.

18. According to the evidence given by Messrs. Burn and Company, the cost of fabricating the steel work in a flat is Rs. 95 a ton. If the British cost is the same as the Indian with the exchange at 1*s.* 6*d.*, it would be higher by Rs. 12 a ton, if the exchange fell to 1*s.* 4*d.* The cost of fabricating the steel in the hull of a power craft would be higher than in a flat, but how much higher it is impossible to say, for in the evidence given by the engineering firms fabrication and erection charges have not been separated. It is the power-craft which are important, for the importation of flats and barges is improbable, and the effect produced by the rise in the exchange cannot be calculated, for neither the Indian nor the British cost of fabrication is known. But even if our information were less incomplete than it is, we should not be prepared to recommend a higher duty on imported vessels than 10 per cent. merely because of a rise in the exchange. When the rate of duty applicable to the products of a protected industry has been fixed on the basis of a particular rate of exchange, and the value of the rupee subsequently rises, there is a *primâ facie* case for an increase in the duty. But an industry for which no scale of protection has yet been fixed has no valid claim to a higher duty on that ground alone. Before its claim can be admitted, it must be established not only that the conditions are less favourable than they were, but also that, owing to the changed conditions, foreign competition has become real and formidable. It is in this respect that the evidence given on behalf of the shipbuilding industry is defective. It has not been shown that, owing to the rise in the exchange, it is probable that orders for vessels, which otherwise might have been placed in India, are likely to be placed abroad. In these circumstances, the rise in the exchange does not justify the imposition of a higher duty than 10 per cent. The fact must be recognized, however, that the conditions are less favourable to the shipbuilding industry than they were in 1923, and the Indian shipbuilder can fairly ask that the duty on the fabricated steel hulls of imported vessels should at any rate not be less than the duty which he has to pay on the unfabricated steel he purchases. In other words, even though the claim to protection fails, the shipbuilder is entitled to equality of tariff treatment in the sense that his position should not be worse than it would be if there were no Customs duty either on unfabricated steel or on ships.

The rise in the exchange not a sufficient reason for a higher duty on imported ships.

19. It will be desirable to summarise briefly the facts brought out in the evidence and the conclusion which they suggest. It is clear that before the war the Indian shipbuilding industry did not require protection, for materials and finished product alike were free of duty, and the industry grew and prospered. It has not been shown that present day conditions are more unfavourable to the Indian shipbuilder than they were formerly, except in respect of (*a*) the protective duties on steel and (*b*) the rise in the exchange, there is no evidence that the British builder can underquote the Indian builder and very few ships have been imported. The natural inference is

Summary of the case.

that, if there were no duty on unfabricated steel and the exchange were at 1*s.* 4*d.*, no duty on imported ships would be necessary. The protective duties on steel increase the costs of the Indian builder by Rs. 35 per ton of fabricated material, and a specific duty of the same amount on imported material would equalize matters in this respect. A 10 per cent. duty on the galvanized material imported by the Irrawaddy Flotilla Company would amount to from Rs. 72 to Rs. 84 a ton, and obviously a higher duty is not needed. What a 10 per cent. duty on ungalvanized shipwork would amount to cannot be ascertained, but if the British costs are approximately the same as the Indian, it would be about Rs. 24 a ton on flats and barges and Rs. 30 a ton or more on power craft. The effect of the rise in the exchange on the cost of the imported material cannot be calculated precisely, because the British cost of fabrication is unknown. There are reasons for believing, however, that the Indian builder has the advantage in this respect, for flats and barges are almost never imported, and when orders for steamers and other craft are placed in England the price is not the decisive factor. The rise in the exchange is not itself a sufficient ground for imposing on imported vessels a higher duty than 10 per cent., but it makes it more necessary to ensure that the duty on the fabricated steel hulls of imported vessels should not be less than the duty which the Indian builder has to pay on the unfabricated steel which he purchases. It is only to this extent that there are sufficient reasons for imposing a higher duty than 10 per cent. on imported ships.

20. Our proposal is that the duty on the fabricated steel parts of ships and other inland vessels should be fixed at 10 per cent. but subject to the proviso that the duty shall in no case be less than Rs. 35 a ton. There will then be no danger that the Indian builder will pay a higher duty on the material he purchases than the importer pays on the finished product. The minimum rate of duty proposed is based on the existing rates of duty on plates and structural sections, and may require modification if, as a result of the statutory enquiry which is about to commence, the duties on unfabricated steel are changed. It will be a simple matter, however, to make the necessary alteration, for full information has been obtained in this enquiry as to the proportion of the various kinds of unfabricated steel in several types of vessel and the extent to which the Indian shipbuilder's costs are increased by the protective duties can be calculated without difficulty. The modifications which should be made in the Tariff Schedule to give effect to our proposal are indicated in Appendix B.

The Board's proposal.

G. RAINY—*President,*

P. P. GINWALA } *Members.*
J. MATTHAI

C. B. B. CLEE—*Secretary,*

14th April 1926.

APPENDIX A.

Oral evidence of Mr. A. Cochran, C.B.E., of Messrs. Burn and Company, Limited, Howrah, recorded at Calcutta on the 21st September 1923.

* * * * * * * *

President.—Under what head of the Tariff are steamers, launches and so on dutiable at present?

Mr. Cochran.—Under clause 136 of the Tariff Schedule—a general 10 per cent. duty.

President.—The point I rather wanted to ascertain here was—take for instance flats and barges—what proportion of the total Indian demand was produced in the country and how much was imported.

Mr. Cochran.—I tried to obtain these figures but there was none that I was able to get. I should say that there are very few flats and barges imported—practically none—on this side of India in any case. A large number are imported into Burma.

Mr. Ginwala.—Not as much as before.

Mr. Cochran.—But these Companies here who used to import many years ago their barges and flats either build these themselves now or get them built by us or other firms.

President.—So that is a branch of commerce in which at the present time the Indian manufacturer holds the field?

Mr. Cochran.—Certainly as regards the local district here.

President.—You mean in Bengal and Assam?

Mr. Cochran.—Yes.

President.—Who are your principal customers in respect of these barges and flats?

Mr. Cochran.—The local firms, steamer companies, local shipping companies, Port Commissioners and Government to a small extent.

President.—What is the position as regards steam vessels? What class of steam vessels do you manufacture?

Mr. Cochran.—The largest that we constructed was a steamer of 1,000 tons during the war. The usual class of steamer is the river steamer. There is no demand for sea-going steamships.

President.—What you manufacture at present is largely for river navigation and for harbour work?

Mr. Cochran.—Yes.

President.—What is the position as regards tugs? Are they manufactured in England?

Mr. Cochran.—In Calcutta and Assam very few are imported. In Burma the Irrawady Flotilla Company imports steamers. A small number of tugs was imported for Karachi and Bombay.

President.—I take it that Burma and Bengal between them must have a very large proportion of the total Indian demand.

Mr. Cochran.—Yes. Because in Bombay, Karachi and Aden they are required only for harbour work. They have not got river traffic there.

Mr. Ginwala.—What about the Indus? I think on the Indus they have got a flotilla.

President.—It used to be very big at one time.

Mr. Cochran.—It is very small now. Before they built the railways, they had a very big flotilla on the Indus but the only steamers that are there now belong to the railway company. There is no service on the Indus corresponding to our service here on the Ganges or Brahmaputra or like the Irrawady Flotilla Company in Burma. The railways did away with all that.

President.—In the case of launches and steamers, the cost of steel apparently is quite a small part of the total capital cost?

Mr. Cochran.—That is accounted for by machinery and boilers. They form half the cost. The other half is the hull of which the steel is 15 per cent.

President.—But in the case of flats and barges the cost of the steel is half the total cost or something more?

Mr. Cochran.—Yes, because there are no machinery and boilers there. The other half of the cost is distributed between the woodwork and outfit, etc.

President.—Is it your contention that, if the duty on steel were raised to 33⅓ per cent., the duty on flats and barges should also be raised to that figure?

Mr. Cochran.—I think probably somewhere about 15 per cent. would leave us in the same position as we are in now.

President.—Could you tell us the approximate date from which the Indian manufacturer here practically got control of the production of flats and barges in this part of the country? How long is it since foreign products ceased to come in on the whole?

Mr. Cochran.—I have been in Burn and Company for 21 years now, and even when I first came out there was very little coming out to Calcutta from home. Of course it is much more reduced now. Certainly it is in the last 15 years that the river steam companies changed their policy.

President.—That being so, it is difficult to estimate what advantage the Indian manufacturer has at present over the foreign manufacturer, because it is so long since there has been competition between them.

Mr. Cochran.—Here also the same thing happens as in the case of engines. We seldom get orders for two boats which are the same. If you get a boat from home it has got to be taken down again there and put up together here when it comes out. It is a very bulky article.

President.—It is a case in which the bulk of the article is a disadvantage to the importer. You mean the work has to be done twice over.

Mr. Cochran.—This is a class of work—I mean steam launches, etc., for river traffic—in which we are in a much more favourable position. It would be quite another thing if we are building sea-going ships.

President.—That I understand. I take it that the competition in regard to sea-going ships is at present even more strenuous than that in other steel trades?

Can you tell me whether the recommendations made in the Report of the Stores Purchase Committee—pages 67-71—are of a general nature or have they any special reference to steamers and launches?

Mr. Cochran.—It lays down what should be built in India, how tenders should be called for and how works should be looked after.

President.—Do they apply to all classes of stores?

Mr. Cochran.—No. To ships only.

President.—Is the demand of Government in respect of steamers, launches and so on, smaller than that of private firms?

Mr. Cochran.—It is very small.

President.—So that you naturally want the recommendation of the Committee to be carried out, but it is not of so much importance in this connection as it is in others?

Mr. Cochran.—No. That was the only point on which both the majority and the minority on the Committee agreed. I mean as regards shipbuilding.

Mr. Ginwala.—There is a Committee now sitting enquiring into the Indian mercantile marine. Are you giving evidence before them?

Mr. Cochran.—We have not quite made up our mind whether to give evidence or not.

Mr. Ginwala.—Have you submitted a written statement?

Mr. Cochran.—There is a draft statement in preparation in answer to their questionnaire.

Mr. Ginwala.—Does that deal with steam launches? Has it any reference to small craft?

Mr. Cochran.—I do not think it has any reference to small craft. It is a Mercantile Marine Committee. I have always understood that they apply to sea-going vessels.

Mr. Ginwala.—I do not know what the conditions are in Bengal—I have not followed them in detail. But in Burma the Irrawady Flotilla Company holds a practical monopoly. They are not bound to give any orders anywhere. Supposing you put a duty of 15 per cent. on steel parts, they can, if they like, still get their steam launches from England and complete them in their own yard. They will probably transfer the additional cost to the people, so that it is impossible to make the Irrawady Flotilla Company pay out of its own pocket. Don't you see that the position is very difficult in the case of steam launches? It is more difficult than it otherwise would be.

Mr. Cochran.—Why?

Mr. Ginwala.—The main customers are people who either manufacture their own steam launches or import them. They have their vested interests in England: they have their head offices in Glasgow and other places. That is a situation far more serious than in the case of railways. Do you really think that if a duty of 15 per cent. was added, you would get orders?

Mr. Cochran.—We never had orders from the Flotilla and never expect to get any.

Mr. Ginwala.—So you are left to your Bengal companies?

Mr. Cochran.—But we can compete with them as regards building.

Mr. Ginwala.—You think you can? Do they tender for steam launches here?

Mr. Cochran.—Not here. They tender in Rangoon and Burma and so do we.

Mr. Ginwala.—Have you been able to get orders from Burma?

Mr. Cochran.—From private firms in Burma and from the railways and the Port Trust in competition with others. Of course the Flotilla Company do not exist for private people. They exist for themselves; they exist there to run a steamer service. It is not their business to build for other people.

Mr. Ginwala.—Is there any other firm here in Calcutta who manufacture launches, barges, etc., besides yourselves?

Mr. Cochran.—Messrs. John King and Company, the Hooghly Docking Company, Messrs. Turner Morrison and Company, the Shalimar Works, the River Steam Navigation Company, Garden Reach Workshop. They all do exactly the same sort of work as we do here, both as regards size and quality. There are no orders for anything bigger than for use in rivers.

Mr. Ginwala.—What is the tonnage of an ordinary river launch?

Mr. Cochran.—40 tons if it is 100′ long.

Mr. Ginwala.—Are they capable of carrying passengers and cargo? Do they also do towing?

Mr. Cochran.—Launches of that kind are used for towing and they also take a few passengers. They are not really passenger boats.

Mr. Ginwala.—Don't you have the kind of passenger boats on this river as in Burma?

Mr. Cochran.—They are not as big as the Rangoon boats. They are about three-fourths of the size of those boats.

Mr. Ginwala.—In the manufacture of a steam launch of that size about half the material will have to be imported?

Mr. Cochran.—No. Ever since we have been able to get angles and plates from Tata's we use these.

Mr. Ginwala.—The boilers will have to be imported as also the other machinery?

Mr. Cochran.—We have made small boilers for two sizes of launches and three sizes of marine engines but all other sizes we import.

Mr. Ginwala.—For steam launches of 40 or 50 ton could you make boilers to fit them?

Mr. Cochran.—No. We could make a boiler for a launch of about 60'.

Mr. Ginwala.—What would be the tonnage?

Mr. Cochran.—It would only be about 15 tons.

Mr. Ginwala.—So far as these are concerned, you manufacture the whole thing here. As regards the bigger sizes what have you to import?

Mr. Cochran.—Boilers, engines and auxiliaries.

Mr. Ginwala.—These would absorb about half the value of the launch?

Mr. Cochran.—Yes, and we only pay a 2½ per cent. duty on engines and boilers.

Mr. Ginwala.—The position is reversed in your favour.

Mr. Cochran.—But it does not pay.

Mr. Ginwala.—On half the cost you are getting 7½ per cent. and on the other half 10 per cent. and that enables you to compete if orders are given to you.

Mr. Cochran.—We used to compete in the old days too.

Mr. Ginwala.—Are the flats, etc., you manufacture only a very small percentage of the requirements for the river?

Mr. Cochran.—I think we get our fair share of the orders placed in a year.

Mr. Ginwala.—Can you let us have the figures of the requirements here?

Mr. Cochran.—I don't think so. For the last two years the trade has been very bad.

Mr. Ginwala.—The Port Commissioners keep registers of flats, barges, steam launches, etc.,—can they give us the figures?

Mr. Cochran.—They can give you the number that are on the river during the year.

Mr. Ginwala.—In Burma, as far as I recollect, there are two registers kept; one contains the list of boats, and, when a new boat has got a certificate, that is registered in a separate register so that you can tell pretty nearly what they are.

Mr. Cochran.—I don't know how they keep their registers here.

Mr. Ginwala.—That would give us an idea what tonnage and number of flats are required. But these figures that are available here (in the Statement of Seaborne trade for India—1921-22) they give the value of steam launches and parts of ships imported. It is a very small figure; in 1921-22—85 lakhs, 1920-21—20 lakhs and in 1919-20—27 lakhs.

Mr. Cochran.—They must be putting in some Royal Indian Marine steamers.

Mr. Ginwala.—I don't think so.

Mr. Cochran.—Is this for the whole of India and Burma?

Mr. Ginwala.—Yes.

Mr. Cochran.—Then that includes perhaps the Flotilla Company.

Mr. Ginwala.—That shows that so far as this industry is concerned there is little competition.

Mr. Cochran.—Yes. So far as we are concerned, we can say there is very little. They may try and get orders but I think we can compete with them.

Mr. Ginwala.—Except to the extent to which you use local steel, there is no necessity for any further protection so far as this industry is concerned.

Mr. Cochran.—No, we don't ask for it. If we get the Stores Committee's recommendations carried out, then we shall be all right.

Mr. Ginwala.—But in respect of the steel that you use you want additional protection?

Mr. Cochran.—Yes, if you raise the duty on steel.

Mr. Ginwala.—You want the same protection or the difference?

Mr. Cochran.—We want to be in the same position as we are now.

President.—Let us be clear on this point. You said that if we raise the duty on steel you would require 15 per cent. on the finished product? It is for you to tell us what you want. It is quite conceivable that in a case of this kind your advantage over the foreign competitor is fairly considerable?

Mr. Cochran.—We don't wish you to take away all our advantages.

President.—It is for you to say, if the duty on steel is raised to 33⅓ per cent., at what rate should, in your opinion, duty be levied on imported flats and barges so that you will not be prejudiced?

Mr. Cochran.—We would ask you to put on another 15 per cent.

President.—How do you justify that?

Mr. Cochran.—On the price at which you are importing the barges.

President.—The addition is 23⅓ per cent. As far as I can see on your own figure you would not pay more than 3/5th of that. Is it 15 per cent. in addition to the 10 per cent., which is already in force?

Mr. Cochran.—Yes. Another 15 per cent. to pay for the extra cost I should have to pay on steel.

President.—But on your own figure it does not justify quite so much.

Mr. Cochran.—12½ per cent. in addition taking it on the approximate rise of 50 per cent. That would make, *plus* the 10 per cent. that they are now paying, 22½ per cent.

President.—Can you give us any basis for calculating the amount of steel in a flat or in a steam launch on the basis of its tonnage?

Mr. Cochran.—No. The tonnage is worked out in a certain way to pay port dues. Boats may have very different tonnages but be almost the same size.

President.—So that in this case I take it that the duty must always be *ad valorem?*

Mr. Cochran.—Yes, there is no other way.

Mr. Ginwala.—I suppose you have got the British price for imported articles, say, a steam launch of 40 tons.

Mr. Cochran.—We have got no figures.

Mr. Ginwala.—So that there is no basis for comparison between your price and the British price.

Mr. Cochran.—What do you mean?

Mr. Ginwala.—We are considering the relative advantages and disadvantages that you have with reference to your competitors. The main competition is from the United Kingdom. Therefore we ought to be able to compare the cost. Suppose we take a 40 ton launch 100' long, and another type that you manufacture 15 tons 60' long. If launches of that type were imported how much would it cost against the price you quote?

Mr. Cochran.—I don't know. I have not got the figures.

Mr. Cochran.—No.

Mr. Ginwala.—You claim that at present your rates cannot be higher than the imported price of these articles, because in that case they would be imported.

Mr. Cochran.—That is so. They are not imported because you can buy them cheaper in this country.

Mr. Ginwala.—So that to determine how much it would cost this country if we take your price and add the *ad valorem* duty we can get the Pritish price.

Mr. Cochran.—That everybody knows.

Mr. Ginwala.—But you are not able to give us the information. May we take those as the figures which you propose for the increased duty?

Mr. Cochran.—I will work them out for you as a typical one in each case but we may call it 15 per cent. to be on the safe side. If you put an increased duty on steel, it would raise the price of steel so much and we want to be in the same position as we are now.

Mr. Ginwala.—Will you work them out and give us the figures. In each case according to the proportion.

Mr. Cochran.—Yes.

Mr. Ginwala.—I take it the steel that you require for this particular department of yours is all obtainable in this country?

Mr. Cochran.—Now that we can get plates from Tata's we can get everything we want for these works locally.

Mr. Ginwala.—There is no other steel that you use which cannot be had here except fittings, etc., which you will always have to import.

Mr. Cochran.—No. Fittings, etc., are made of cast iron.

Mr. Ginwala.—Have you ever made them?

Mr. Cochran.—The only thing we cannot make is chains. We make anchors.

Mr. Ginwala.—Chains require special steel.

Mr. Cochran.—Yes.

Mr. Ginwala.—Do you deliver the launches in a finished stage—there is nothing further to be done?

Mr. Cochran.—Sometimes we send them away in pieces. We send launches as far away as Mauritius, Marmagoa and other parts, but the export is quite small.

Mr. Ginwala.—Did you tender for these orders or did they send order to you?

Mr. Cochran.—We were asked to quote. We don't know whether any others were asked to quote.

Mr. Ginwala.—That is only as regards launches.

Mr. Cochran.—I don't think we exported any barges as far as I remember.

Mr. Ginwala.—Don't you build any of these rice and oil boats for Burma?

Mr. Cochran.—We built oil flats for Burma, but no rice boats.

Mr. Ginwala.—Is that for the Burma Oil Company?

Mr. Cochran.—It was for the other Oil Company. That was about 13 years ago.

Mr. Ginwala.—I take it that most of your products are used locally?

Mr. Cochran.—Yes.

President.—I find that out of the 85 lakhs worth of imported ships, etc., in 1921-22 the share of Bengal was 65 lakhs.

Mr. Cochran.—I remember what it was now. They include three dredgers for the Public Works Department. That is a case in point. They could have been quite easily built here. No tenders were called for here; the orders were placed in England.

President.—The point I want to put to you about compensating protection is this. The duty on both steamers and on iron and steel was raised to 10 per cent. comparatively recently. You don't remember when the change was made.

Mr. Cochran.—It has always been the same as steel. It used to be 2½ per cent.

President.—With a 10 per cent. duty on the steamer you get an extra bit of protection which is more than compensated for by the duty on steel. What I want to put you is this, that you cannot start on the basis that a 10 per cent. is the normal state of affairs. If you add 15 per cent. to the 10 per cent. you are really more than protected. Hitherto the duties have always been on a revenue basis: but on a protection basis your protection should be based on the price of steel. According to your proposals you will be getting more protection than is required. I think that is a point we have got to consider.

APPENDIX B.

Proposed sections of the Tariff Schedules embodying the Board's recommendations regarding Fabricated Steel parts of ships and vessels.

No.	Names of articles.	Unit or method of assessment.	Duty.
147	Iron or steel plates not under ¼-inch thick including sheets ¼-inch thick or over—		
	(b) Fabricated, all qualities, except the component parts of ships and other vessels as defined in No. 64.	*Ad valorem* .	25 per cent.
	(c) Fabricated, being the component parts of ships and vessels as defined in No. 64.	*Ad valorem* .	10 per cent. or Rs. 35 per ton whichever is higher.
	(d) Cuttings, all qualities	Ton .	Rs. 25.
148	Iron or steel sheets under ¼-inch thick—		
	(b) Fabricated, all qualities, except the component parts of ships and vessels as defined in No. 64.	*Ad valorem* .	25 per cent.
	(c) Fabricated, being the component parts of ships and vessels as defined in No. 64.	*Ad valorem* .	10 per cent. or Rs. 35 per ton whichever is higher.
	(d) Cuttings, black or galvanized . .	*Ad valorem* .	15 per cent.
150	Steel, angle and tee, not galvanized, tinned, or lead coated and beam, channel, zed, trough plate, piling and other structural sections—		
	(a) Fabricated, all qualities, except the component parts of ships and vessels as defined in No. 64.	*Ad valorem* .	25 per cent.
	(b) Fabricated, being the component parts of ships and vessels as defined in No. 64.	*Ad valorem* .	10 per cent. or Rs. 35 per ton whichever is higher.
	(c) Not fabricated	Ton .	Rs. 30.
153	Steel structures, fabricated partially or wholly, not otherwise specified, if made mainly or wholly of steel bars, sections, plates or sheets, for the construction of buildings, bridges, tanks, well curbs, trestles, towers and similar structures or for parts therefor, but not including builders' hardware (see No. 90) or articles specified in Nos 51, 51A, 64 or 87, or the component parts of ships and other vessels as defined in No. 64	*Ad valorem* .	25 per cent

Evidence.

DEPARTMENT OF COMMERCE.

RESOLUTION.

TARIFFS.

Delhi, the 28th March 1925.

No. 221-T.—In paragraph 16 of the second portion of the original Report regarding the grant of protection to the Steel Industry, the Tariff Board considered as a general conclusion that an increase in duties on unfabricated steel did not necessitate any increase in the duties on imported boats, barges, flats, steamers, etc. The Board did not arrive at any distinct finding as to the duties which ought to be imposed when such vessels were imported as shaped and fabricated parts for erection in India, as that question was not brought to the notice of the Tariff Board. This question is now referred to the Tariff Board for enquiry and report with special reference to a representation received from the Irrawaddy Flotilla Company that the geneal conclusion of the Tariff Board should be held to cover the imports of shaped and fabricated parts of such vessels.

2 Firms or persons interested in the above enquiry should address their representations direct to the Secretary of the Tariff Board.

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, the Indian Trade Commissioner in London and the Secretary of the Tariff Board.

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

D. T. CHADWICK,

Secy. to the Govt. of India.

QUESTIONNAIRE FOR THE IRRAWADDY FLOTILLA COMPANY AND THE INDIA GENERAL NAVIGATION AND RAILWAY COMPANY, ISSUED ON THE 17TH SEPTEMBER 1925.

1. What classes of inland vessel do the Company require for their own use, *e.g.*, cargo, towing and passenger steamers, tugs, steam launches, cargo boats and flats?

2. How many orders for vessels of each class have been—

(*a*) placed in India,

(*b*) placed in Europe,

during each of the last five years?

3. Does the decision whether to purchase in India or to import depend merely on the price or are other factors also taken into account?

4. Are any vessels habitually imported because owing to their type or their size, they cannot, in the opinion of the Company, be satisfactorily constructed in India? If so, what are the special types, and what are the limits of size?

5. Can the Company supply the Board with any comparative figures for the years 1923, 1924 and 1925 showing the cost of locally purchased vessels as compared with the cost of imported vessels of the same type and class?

6. Are the imported vessels erected after importation by the Company themselves, or by some local engineering firm?

7. If the Company erect their own vessels, do they also undertake the erection of vessels for other firms and persons?

8. When an order for a vessel is placed in Europe, are any of the materials purchased in India (*e.g.*, woodwork or other fittings) and built into the vessel at the time of erection? If so, what are they?

9. Do the steel parts of vessels imported by the Company come out completely fabricated or is any fabrication done after importation?

10. What is the approximate total cost at present of a vessel of each of the classes usually imported by the Company? The approximate dimension of the vessel taken as typical in each class should be stated and whether the cost given is that of an imported vessel or of a vessel purchased in India.

11. What percentage of the total cost of a vessel of each class is accounted for by—

(*a*) fabricated steel parts,

(*b*) machinery,

(*c*) other imported materials or parts,

(*d*) other materials or parts not imported,

(*e*) erection in India.

12. By what percentage would the total cost of a vessel of each class be reduced, if the duty on the fabricated steel parts were reduced from 25 per cent. to 10 per cent.?

13. What is the present average c.i.f. cost (without duty) per ton of the fabricated steel parts of imported vessels which are charged with duty at 25 per cent. *ad valorem*?

14. Are the fabricated steel parts, owing to the shape given to them, more bulky in proportion to their weight than unfabricated material?

15. What is the average rate at which sea freight is paid on the imported fabricated steel parts of vessels?

16. Have the Company ever imported a vessel in sections in the sense in which that term has been defined by the Central Board of Revenue?

17. Duty is at present payable at 25 per cent. on the imported parts of fabricated steel, and at 2½ per cent. on imported machinery. At what rate is duty commonly charged on other imported materials required for the construction of an inland vessel?

18. Have the Company any suggestions to make as to the manner in which the Tariff Schedule should be amended, if it is decided that the duty on the fabricated steel parts of vessels should be reduced?

19. The imposition of protective duties has increased the cost of the fabricated steel parts of vessels, but on the other hand there has been a substantial fall in the sterling price of steel. Also the rise in the value of the rupee has reduced the cost of all imported materials and parts. To what extent, if at all, has the c.i.f. cost in sterling of—

(*a*) imported machinery,

(*b*) imported materials and parts,

(excluding fabricated steel).

fallen since 1923?

QUESTIONNAIRE FOR THE ENGINEERING FIRMS ISSUED ON THE 17TH SEPTEMBER 1925.

1. What classes of inland vessel are constructed by your firm, *e.g.*, cargo, towing and passenger steamers, tugs, steam launches, cargo boats and flats?

2. What is the approximate total cost at present of each class of vessel constructed by your firm? The approximate dimensions of the vessel taken as typical in each class should be stated.

3. The cost of a vessel constructed in India may be roughly classified under the following heads:—

(*a*) Unfabricated steel subject to protective duties.
(*b*) Machinery.
(*c*) Other imported materials.
(*d*) Other materials locally purchased.
(*e*) Fabrication and erection.

What percentage approximately of the total cost of a vessel of each class is accounted for by the cost under each of these heads?

4. What percentage of the cost of the unfabricated steel used in the construction of a vessel is accounted for by the protective dtuies on unfabricated steel?

5. Taking the total quantity of unfabricated steel (subject to protective duties) used in the construction of a vessel as 100, what percentages of the total are accounted for by—

(*a*) plates,
(*b*) structural sections (*i.e.*, beams, angles, channels, tees and similar shapes),
(*c*) bars,
(*d*) other classes of steel which should be specified.

6. The imposition of protective duties has increased the cost of the unfabricated steel used in the construction of vessels, but on the other hand there has been a substantial fall in the sterling price of steel. Also the rise in the value of the rupees has reduced the cost of all imported materials. To what extent if at all has the c.i.f. cost in sterling of—

(*a*) imported machinery, and
(*b*) imported materials and parts (excluding unfabricated steel),

fallen since 1923?

7. In 1923 Mr. Cochran giving evidence on behalf of Messrs. Burn and Company, Limited, put forward the view that, if the duties on unfabricated steel remained at 10 per cent., no protection was needed for vessels. If, however, the duties on unfabricated steel were raised, he considered that the duties on vessels and their component parts should be increased to the extent necessary to compensate for the increase in costs. Do you agree with this view as a statement of the position in 1923?

8. As a result of their enquiry into the Steel industry the Tariff Board came to the conclusion that, in Bengal and Assam at any rate, there was a margin between the cost of manufacturing vessels in India and of importing them, and that the necessity of increasing the Customs duty on vessels and their component parts to compensate for the increase in costs due to the protective duties on steel had not been established. Can you mention any facts not brought to the notice of the Board in their first enquiry (see pages 396 to 402 of Volume II of the Evidence in the first enquiry) which might have led them to take a different view?

9. Is the need for protective duties on imported vessels and their component parts greater now than in 1923? If so, from what changes in the circumstances has this increased need arisen?

10. Can you give the Board any definite evidence as to the difference between the cost of constructing any class of vessel in India and the cost of importation, *e.g.*, specific cases in which orders for vessels required for use in Bengal or Assam were placed abroad, though they might have been constructed in India? If any such cases are known to you, the price at which and the date on which the order was placed should be stated.

11. What is approximately the largest size of vessel in each class, which your firm would undertake to construct?

12. May the wastage which occurs in the fabrication of the steel parts of Indian vessels be taken at 10 per cent. approximately.

13. If the wastage is taken at 10 per cent. the protective duties on plates, beams, angles, channels, etc., add Rs. 33 a ton and the duty on bars Rs. 44 a ton to the cost of the fabricated steel used for the construction of inland vessels. What percentages of the c.i.f. cost of imported fabricated steel parts would these sums represent?

Letter, dated the 17th September 1925, from Secretary, Tariff Board, to the Engineering Association, Calcutta.

The Tariff Board have been directed to enquire into representations received from the Irrawady Flotilla Company, Limited, and from the India General Navigation and Railway Company, Limited, protesting against the increase in the duty on the fabricated steel parts of steamers and other inland vessels from 10 to 25 per cent. This increase in the duty has resulted from the actual wording of the amendments made in the Tariff Schedule by the Steel Industry (Protection) Act. Under entry 64 in the statutory schedule, ships and other vessels for inland and harbour navigation imported entire or in sections, are subject to duty at 10 per cent., but the Central Board of Revenue have ruled that the words "in sections" refer to the importation of a vessel in sections which can be launched separately and fastened together in the water for facility of transport and handling, and not to a collection of dismantled units, even if the collection is complete. It appears that vessels are rarely, if ever, imported into India 'in sections' if the phrase is used in the sense, and only the smallest vessels could be imported "entire." For practical purposes, therefore, all imported vessels, in so far as they consist of fabricated steel are subject to a duty of 25 per cent. *ad valorem.*

2. Under the Tariff Schedule, as it stood before the passing of the Steel Industry (Protection) Act, the fabricated steel parts of imported vessels were subject to a duty of 10 per cent. *ad valorem*, whether they were classified for Customs purposes as fabricated steel or as component parts of ships and other vessels, and the exact interpretation to be placed on the phrase 'in section' could not affect the amount of the duty. For this reason, no doubt, the attention of the Board was not called to the point in their original enquiry. It was not in fact their intention that the duty on the fabricated steel parts of ships and other inland vessels should be increased, and if the point had been raised the amended schedule would have been so worded as to make their intention clear. Since 1923, however, when the Board first took evidence on this subject, circumstances have changed materially and it does not follow that, because no increase in the 10 per cent. duty was needed then, a higher rate of duty may not be required now. It is necessary, therefore, to ascertain what the position is at present, and in order to elucidate the facts the Board have drawn up a questionnaire for the engineering firms who are interested in the construction of ships and other inland vessels. A copy has been sent to Messrs. Burn and Company, Limited, the only engineering firm who gave oral evidence on the subject in the Board's first enquiry. I am directed to enclose 12 spare copies of the questionnaire and to request that copies may be forwarded to those members of your Association who undertake the construction of ships and other inland vessels. I am to say that the Board would be glad to receive not later than the 15th October 1925, the written answers (with five spare copies) of those firms who desire to put their views before the Board and to be informed in each case whether the firm wishes to give oral evidence. I am also to enclose for the information of the Association a copy of the questionnaire which has been sent to the Irrawaddy Flotilla Company, Limited, and the Indian General Navigation and Railway Company, Limited

Witness No. 1.

THE IRRAWADDY FLOTILLA COMPANY, LIMITED.

A.—Written.

Representation, dated the 21st August 1924, to the Central Board of Revenue, India, through the Collector of Customs, Rangoon.

The report of the Indian Tariff Board regarding the grant of protection to the Steel industry contained the following reference to river craft:—

> "A considerable number of steamers, tugs, flats, barges, etc., are manufactured at present principally at Calcutta and in Rangoon. The evidence we have taken suggests that in this branch of manufacture the engineering firms have little to fear from foreign competition, and no serious complaints have been made. This may be due to the fact that the component parts of these vessels are bulky in proportion to their weight, and the freight payable on imported materials is therefore higher than in the case of ordinary structural steel. In effect, therefore, these products enjoy a certain degree of natural protection. We are not satisfied that there are sufficient reasons at present for raising the 10 per cent. *ad valorem* duty in the case of vessels of this kind. It is possible, of course, that, with the increased cost of unfabricated steel, prices may rise to a level at which the foreign manufacturer would find it possible to compete. But there is no real evidence at present that the risk is great or imminent, and we think the danger we have referred to must be dealt with specially when it arises."

and it would appear to be clear, therefore, from this that the Tariff Board contemplated no increase in respect to vessels built, say, Britain and afterwards dismantled and shipped out in parts for re-erection in India.

The Tariff Board would be aware when they made this reference that probably at no time in the history of India or Burma has any vessel been imported in "sections" as now defined by the recent ruling of the Central Board of Revenue and their remarks must, therefore, have been directed towards the existing custom of importing such vessels in shaped and rivetted pieces and parts, otherwise such prominence would not have been given to the subject.

The ruling that the word "sections" is now to be used in the ordinary dictionary sense and that vessels hulls built abroad and imported in parts for re-erection are to be charged as "fabricated steel," thus raising the rate of duty from 10 per cent. to 25 per cent., throws an excessively heavy burden on those Inland Shipping Companies in India and Burma who desire to maintain a high standard in respect to their fleet replacements and additions.

Prior to year 1916 inland vessels were imported free of duty. In 1916 a duty of 2½ per cent. was imposed which in 1922 was increased to 10 per cent. and which now, in virtue of this new ruling, has attained the excessive figure of 25 per cent.

Inland vessels, except the very smallest, could not be brought out in "sections" (as now defined) and the very high class vessels with which this Company maintains its mail and passenger services cannot be built in India or Burma and perforce must be imported.

Inland shipping has much to contend with in the shape of railway and native boat opposition and the high rate of duty now imposed is throwing an intolerable burden upon it which is bound to retard the development of water communications. Rates and fares are already high and the increased duty cannot be recovered from the public without injury to trade.

However great the need for protection of the Steel industry is, I submit it should not be enforced at the expense of communication the development of which is one of the most crying needs of the Indian Empire.

The burden of duty which imported inland vessels now have to bear on top of the enormously increased post-war cost must of necessity result in vessels of a cheaper and poorer class being built in future, to take the place of the fine vessels now plying when these drop out through old age, and the travelling and trading public and the country generally will be the losers thereby.

I trust that this matter will receive your sympathetic consideration and that it will be found possible in the public interests to make some very considerable reduction in the existing duty of 25 per cent.

P.S.—The dimensions of our mail steamers are 326 feet long by 46 feet broad and 11 feet depth of hull. They have double decks and their gross tonnage is about 1,700 tons.

Statement II.—Letter, dated the 12th October 1925.

I have the honour to acknowledge receipt of your letter No. 519 of 17th September 1925 enclosing copy of a questionnaire from the Tariff Board in connection with this Company's application for a reconsideration of the decision of the Central Board of that new vessels, partially constructed and put together in the United Kingdom and then dismantled and brought out to Burma for re-erection and completion, do not come under the category of "Inland Vessels in Sections" as laid down in the Tariff Schedule.

I have pleasure in enclosing, as requested, six copies of my replies to the questionnaire, but I should like to comment in this letter on certain points which arise in connection therewith.

It is unnecessary to recapitulate the arguments put forth in my letter of 21st August 1924 except perhaps to emphasize—

(1) the obvious original intention of the Tariff Board that the words "Vessels in Sections" should apply to vessels such as ours brought out in pieces for re-erection. This point has been admitted and there is little reason to doubt that, if the Tariff Board, at their original deliberations, had contemplated any other reading of the phrase, they would have taken steps to safeguard such vessels.

(2) that the larger units of our fleet cannot be constructed in India, for reasons given in our answers to questionnaire. The smaller vessels which can be built here are only of subsidiary importance, *viz.*, harbour launches, tugs, pilot launches and cargo boats. These constitute a very small fraction of the capital value of our fleet and our real interests lie in the larger vessels which actually are employed in the carriage of passengers and cargo and which form such a vital part in the commerce and development of this Province. These latter vessels are now subject to the higher rate of duty, and our contention is that the tariff does not, on the one hand, afford any protection in this instance to the Indian Steel Industry, while it puts a severe handicap upon commerce here. We build, and will continue to build in Burma such of our vessels as our large and efficient Dockyard can undertake. The others we *must* continue to order from Europe.

This Company has built or is building during this year, for completion before 31st December 1925, vessels for its own use alone which amount in value to twelve lakhs of rupees. This, we contend, is sufficient evidence in itself that we build in India all such vessels as can be constructed here. We would gladly extend this to other classes of vessels, if this were possible. We therefore consider as reasonable our request that such vessels as we *must* import

should be allowed in at the lower rate of duty, since, in the circumstances, they affect the Indian Steel industry neither one way nor the other.

As regards the questionnaire itself, certain answers are somewhat difficult to give in the detail asked for. Our fleet consists of several types of vessels and many of these types only come up for renewal at intervals. Consequently it is not possible for us to give the required information as to the present day cost of some of them which we have not recently imported (see questions 10 and 11). Furthermore I would refer you to our answer to question 19 (*b*) which explains why certain comparative figures of costs are not available.

With reference to Question No. 19, there is a possible implication therein that the tariff on steel has had the effect of forcing home manufacturers to reduce prices and that thereby firms like ourselves obtain a compensating benefit from the tariff. We have heard this argument put forward and would simply record the counter argument that the present price of steel from Europe is brought about by many world wide considerations, of which the Indian Tariff is only one, and that we are entitled in any case to the benefit of the reduction from the inflated prices of the post war years. We cannot see that any justification of the retention of the tariff as regards imported vessels can be drawn from the recent decrease in the price of steel. Similarly with the question of the present more favourable exchange. In our correspondence with you we claim to show that the present high duty on imported vessels is not necessary for the protection of the steel industry in India and if the justice of this claim be admitted, no question of the compensating effect of improved prices and favourable exchange should be allowed to operate against the reduction in duty to which we feel the Inland Shipping Companies are entitled.

With regard to the questionnaire to Engineering Firms which we have also received we hope to forward our replies by next mail.

1.

1. Large Paddle Steamers . .	326′ × 46′ × 11′	Passenger and cargo
2. Intermediate Paddle Steamers	232′ × 30′ × 8′	Do.
3. Ferry Paddle Steamers . .	185′ × 30′ × 7′6″	Do.
4. Sternwheel Steamers . .	132′ × 31′ × 4′9″	Do.
5. Steam Barges . . .	100′ × 20′ × 8′	Do.
6. Creek Steamers, double-decked	115′ × 25′ × 7′6″	Do.
7. Single Decked Launches .	80′ × 16′ × 7′	
8. Pilot Launches . . .	50′ × 11′ × 5′3″	
9. Cargo Flats	225′ × 34′ × 9′	
10. Cargo Boats . . .	91′ × 18′ × 7′	

NOTE.—We have variations of all the above types in use, but the above have been chosen as representative of modern practice in each class.

2.

Class as per Question 1.	In India.	In Europe.
1	*Nil.*	*Nil.*
2	*Nil.*	1
3	*Nil.*	6
4	*Nil.*	3
5	8	*Nil.*
6	*Nil.*	8
7	6	*Nil.*
8	7	*Nil.*
9	14	5
10	*Nil.*	*Nil.*

NOTE.—Vessels shewn as "ordered in India" were actually constructed or are under construction by ourselves, with imported Machinery where power driven.

Vessels shewn as "ordered in Europe" were imported in pieces and erected here.

3. Price is not the only consideration. Our Home builders are entirely familiar with the construction of all the types of vessels we use and with all our requirements in connection with the detail thereof. Apart from minor improvements, orders for new craft almost always follow the lines of vessels previously built, of which the builders possess the plans and templates. It would consequently involve both trouble and expense to order vessels elsewhere.

In addition, all machinery for our craft has to be obtained in Europe in any case.

The waters of the rivers of Burma, and more especially of the Delta, necessitate the use of galvanised material in the construction of our vessels. This in itself prevents us from building all our larger types (say above 100 feet) in Burma, since we have no means of galvanising plates and angles after they have been furnaced and shaped.

4. Yes, all vessels of Classes 1, 2, 3, 4, and 6 (of dimensions as shewn in Answer 1) could not be satisfactorily constructed in India. As stated in Answer 4, the making of the machinery and the galvanising of the hull materials after they have been fabricated prevent this.

Certain types, *e.g.*, flats and cargo boats which are of simple lines and construction, we build here entirely, others—the larger types—we obtain entirely from the United Kingdom, while others again, such as harbour launches and steam barges we build in Burma except for the machinery which we obtain from Europe.

We recognise one hundred feet as being about the limit of size of steam driven vessels which we care to construct ourselves and 225 feet as the limit for flats.

5. No. We have *purchased* no vessels in India during the period mentioned.

As indicated in Answer 4, certain types of vessels we always *build* here, while the others are always ordered in Europe. Consequently we have no figures to put against one another.

6. Erected by the Company.

7. Yes, the Company undertake the re-erection of vessels for other firms or persons. This is, however, a class of work which we are very seldom asked to do. This Company is the only commercial undertaking in Burma which owns inland vessels of any size. The requirements of other firms are practically confined to tugs, harbour and towing launches and cargo boats, and we are usually asked to construct such craft entirely in our Dockyard (the machinery being imported from home).

8. Yes, all timber for the necessary woodwork is purchased in Burma, also glass for windows and ports. All ropes are of local manufacture, and castings (apart from those incorporated in the machinery) are made in our own Foundry. These are the principal items of local manufacture, but other stores and fittings, *e.g.*, canvas, paints, bolts, etc., are issued from our own Store, which, however, obtains most of its stocks from the United Kingdom.

9. Completely fabricated.

10. It is impossible to give the *present* total cost of each of the imported vessels mentioned in Answer 1. Our larger types are only replaced at intervals, and we have neither imported nor constructed here any vessels of Classes 1, 3, 4, and 10 since the imposition of the new duties.

Of the remaining classes mentioned in Answer 1, the approximate total cost of a vessel of

Class 2 would be £35,000	imported from Europe.
6 would be £15,000	imported from Europe.
5 would be £6,150	built in Rangoon with British machinery.
7 would be £4,000	built in Rangoon with British machinery.
8 would be £3,500	built in Rangoon with British machinery.
9 would be £9,500	built in Rangoon.

11. Taking as an example Class 6 (*i.e.*, Creek Steamer of 115 feet) which is the only class of vessel which we have imported since the imposition of the new duties, and which is the class which we would most frequently be purchasing, the percentages are:—

(*a*) 32½ per cent.; (*b*) 40 per cent.; (*c*) 1¾ per cent.; (*d*) 11¾ per cent.; (*e*) 14 per cent.

12. Taking Class 6 as above the total cost of the vessel would be decreased by 3·9 per cent. if the duty on fabricated steel were reduced from 25 per cent. to 10 per cent.

13. The present average c.i.f. cost of the fabricated steel parts of imported vessels chargeable to duty at 25 per cent. varies according to the size of the vessel concerned but it is roughly between Rs. 720 and Rs. 840 per ton, to which duty has to be added.

14. Fabricated parts are more bulky and more liable to damage than unfabricated.

15. £3 per ton.

16. No, we have no record of any such vessel, nor do we consider it likely that anyone would import a vessel in that condition into any port where facilities for re-erection from pieces are available.

17. Duty is payable at Rs. 45 per ton on galvanised corrugated sheets.

Duty is payable at Rs. 10 per cent. on bolts, nuts, and washers.

Duty is payable at Rs. 15 per cent. on ships tackle, hand pumps, fittings, etc.

18. We consider that our vessels, imported in pieces, should be treated as "vessels in sections." Such treatment was contemplated by the Tariff Board at their original deliberations and the whole question simply hinges on the interpretation given to the word "sections." As vessels, except of the very smallest type, would never be imported in "sections," (in the sense of two or three complete pieces of hull ready to be rivetted together) the implication is strong, and almost irresistible, that vessels such as we import for re-erection, are the ones contemplated under the Act.

19. (*a*) For a duplicate set of machinery received this month, we have paid exactly the same price as for a set ordered in 1923. There was however a considerable fall between the years 1922 and 1923 probably 10 per cent.

(*b*) We cannot definitely answer this question. Before the introduction of the new duties, when a vessel was brought out for re-erection and completion here, duty was payable at 10 per cent. on the complete hull. Consequently we received no invoices shewing separately the different values of the various materials making up the hull. We simply obtained a lump sum invoice for the hull and another for the machinery. We have therefore no comparative figures to go on, but would estimate the fall in prices at 7½ per cent. to 10 per cent.

Statement III.—Letter from the Irrawaddy Flotilla Company, Limited, dated the 14th October 1925, forwarding replies to questionnaire for the Engineering Firms.

With reference to your letter No. 519 of 17th September and further to our letter of the 12th October, I have the honour to send herewith our replies to the questionnaire submitted by the Tariff Board to Engineering Firms interested in the construction of vessels for inland navigation.

Replies to questionnaire for the Engineering Firms.

1. Steam Barges, Harbour Launches, Cargo Flats, Cargo Boats, Pilot Launches.

2. Of the above we have not built recently any of the two last named types and cannot state their cost.

Of the others the present cost of a—

	Rs.
Steam Barge 100′ long is	81,150
Harbour Launch 75′ long is	70,000
Cargo Flat 225′ long is	1,27,000

3. The percentages are as follows:—

	Steam Barge.	Launch.	Cargo Flat.
(a)	22	23⅓	40¼
(b)	22	25⅓	*Nil.*
(c)	15	16	14¾
(d)	7	8⅓	6¼
(e)	34	27	38¾

4. The duty on the unfabricated galvanised steel used in the construction of a steam barge as above is equivalent to 10·5 per cent. of the landed cost of the steel.

5.

	Cargo Flat. per cent.	Steam Barge. per cent.	Launch per cent.	Cargo Boat. per cent.
(a)	76	73	75	72
(b)	22½	25½	23	26
(c)	1	¾	1	1
(d)	½	¾	1	1

The last two items are practically negligible in each case, but corrugated iron sheet, which is not included above, is a considerable item in some vessels.

6. (a) *Nil.* The drop in machinery prices took place in 1922.

(b) About 8 per cent.

7. No. Mr. Cochran's statement, as reported, is too sweeping. No discrimination is made between small vessels which can be built in India and the larger ones which cannot. Nor is allowance made for the high rate of freight charged on imported fabricated steel, nor for the comparative cheapness of labour in Calcutta as compared with the United Kingdom. Both of these act as a protective measure and, in addition, there is the fact that prospective purchasers of small vessels much prefer to have them built in India, where details can be more readily discussed and progress watched, and where they have the builders local knowledge of conditions always available. This might not apply with a firm who were constantly ordering vessels of a standard pattern, but there are very few, if any, such firms.

8. No.

9. No. It is simply a question of the margin of profit which the Indian builder wants. Even allowing for the recent drop in imported steel prices, it is still profitable to build in India such vessels as can be built there. Other considerations than the price of steel are in operation (see Answer 7). This Company would still continue to build its smaller vessels in Rangoon if the present duty on imported vessels were removed (see also Answer 10).

10. No. Certain types of our own vessels are now always built here, while certain other types are always imported owing to size, etc. So we have no comparative figures.

We can, however, instance a recent order from an outside firm which we received, against keen home competition, and in this case we afterwards discovered that the purchasers, when considering the Home quotations, had, all along (under a misapprehension as to the meaning of the words "vessels in sections" in the Tariff Schedule) been estimating that they could import the Home vessel at 10 per cent. We may, therefore, say that we got this order as against the former rates of duty.

11.

Steam Barges	100′
Launches	100′
Flats	225′
Cargo Boats	100′

12. For the construction of the types of vessels usually constructed in India a wastage of 10 per cent. is approximately correct. The larger the vessel, however, the smaller would be the wastage while vessels like cargo boats, where there is no roof and no engine room, would shew less than a steamer.

13. 4⅓ per cent. and 5½ per cent.

Statement IV.—Irrawaddy Flotilla Company.

FLEET 1925.

Classification according to the list given in reply to Question No. 1 of the Board's Questionnaire.

Large Paddle Steamers	20
Ferry and Feeder Steamers	26
Stern Wheelers	10
Twin Screw Steamers	6
Creek Screw Steamers	96
Single Deck Steamers	34
Barges	17
Tugs	9
Salvage Vessel	1 *
Rock Puncher and Dredger	1 *
Superintendent of Pilot's Launch	1 *
Water Steamer Barge	1 *
Flats	120
Cargo Boats	135
Moulmein Cargo Boats	5
Pontoons	10
Double Deck Barge	1
Station Hulks	30
TOTAL	523

* Very seldom replaced, say once in 25 years.

Tonnage and Passengers.

	Reg.	Gross.	Passengers.
Assam	1,171	1,668	2,575
Ceylon	832	1,321	2,575
Mindoon	915	1,250	2,840
Shivelon	327	438	968
Kinu	196	310	793
Saga	180	214	522
Pago	63	163	380
Gallio	74	158	454
Bassein	22	...	88
Peturin	68	117	113
Flat 225″	771	...	...
C. B. 90″	150	...	...

Statement V.—Letter, dated the 8th February 1926, from the Irrawaddy Flotilla Company, Limited.

We attach hereto answers to the supplementary questions put to us in connection with our evidence on the subject of duty on imported vessels and trust that the information given is what you require.

As regards the question of the necessity for the galvanising of the materials for our vessels, we desire very strongly to emphasise our firm conviction on this important point. From the fact that the Calcutta firms have not found it necessary to take this step, an inference may have been drawn that, while this Company prefers galvanised materials, there may be no real necessity for it. A lengthy experience has forced us to a definitely contrary view.

We are unable to say wherein lies the difference between the waters of the Ganges and Irrawaddy Deltas, but in view of the evidence now available as to the length of life which can be attained by ungalvanised craft on the former, there can be no doubt that some injurious element, which we have to combat here, is absent there. It is possible that the Government analysts could supply the information required. We have only once had any of our creek waters analysed and understand from the analysts' report that the sample water sent them was of a most injurious type and highly destructive of steel plates, etc.

In view of the stress laid on this question we would cite a few facts regarding one vessel which we did build of ungalvanised material, namely our steamer "Ava" which was completed in the latter half of 1903. Her first docking took place in less than a year (August 1904) and the report attached to the defect list at that time states, "The shell plating below the light water mark is showing signs of pitting very much, in places along the landings and just above the 4′ mark, also the bottom plates are badly pitted in places." A report of this sort would never be found regarding any of our galvanised vessels, doing the same work, in anything less than seven years from their construction. By 1907, the report on the same steamer reads, "Deterioration of the hull is strongly in evidence." In spite of careful attention and very large annual docking bills, this vessel ultimately reached the stage that in 1921 her life as a plying unit was over. We then proposed following our usual practice of converting her for use as a station landing stage, but after the work of dismantling had been started, she was found to be in such very bad condition as to make her useless even for that purpose, without very heavy expenditure, and she had perforce to be disposed of by sinking. This vessel therefore lasted altogether under 18 years, against 25 years' plying life, *plus* an indefinite number of years as a station flat which we get from galvanised hulls. Furthermore it is to be noted that during her whole career she was plying from Rangoon to Upper Burma and that consequently for

almost 50 per cent. of the time she was in the clearer waters of the main river, whereas many of our other classes are constantly in Delta water and subject all the time to the corrosive action of same.

In the same connection we would note further that certain cargoes which we carry in large quantities are very deleterious to the holds and decks of our vessels. One of the chief of these is *ngapee*, a paste compounded of semi-putrescent fish and salt, which exudes a liquid which is highly injurious to steel. A by-product of this, *ngapee* water, is another item which is very largely shipped, and since it is frequently put on board in defective tins, is just as destructive as the other. These articles are both manufactured in the Delta, and from there are carried all over the country by our steamers. It is largely on account of this trade that the decks of our otherwise ungalvanised flats are made of galvanised steel. We understand that the production of *ngapee* is confined to Burma.

Cargoes of groundnuts and *kuppas*, which are two of the principal staples carried, both have the effect of setting up sweating in the holds of our steamers, and black iron vessels have constantly to be treated internally with anti-corrosives. Apart from rice, therefore, our principal items of shipment—*ngapee*, *ngapee* water, salt, cotton and groundnuts—are all injurious to black steel vessels.

In addition, the percentage of humidity is high in Lower Burma, which has a much longer rainy reason than Bengal, and a very large rainfall. All exposed black steel is affected by this.

Regarding the matter from another point of view, the question of steamers' drafts is also important. If ungalvanised material were used, heavier plates, etc., would be necessary, which would be a serious handicap, as, during the low water season, drafts are of the greatest importance, and every inch is valuable. We ply over 1,000 miles up the Irrawaddy and on practically the whole of that distance river conditions are such as to make it essential that every means should be taken to achieve light draft in order to avoid interruption and dislocation of services.

It has been urged that, if we can get along with ungalvanised flats, our steamers can be dealt with similarly. We may say that the question of galvanising certain flats is having our consideration. This procedure would be advisable in some cases and on some grounds, but there are also certain points against it as a general proposition. Firstly, our flats are not all in use all the year round. In Burma the off season for produce coincides with the high water season. The deeper drafts attainable at that time by the steamers, combined with the shortage of cargo offering, permit of a large proportion of the carriage of same being undertaken by the steamers alone without the aid of flats. This operates in two ways. It enables us to lay up the idle flats for a considerable part of the year in the clear waters of Upper Burma, where corrosive action is negligible, and it also means that the docking of a flat in this off season does not necessitate the removal and replacement of a plying vessel which would otherwise be earning money. The docking of flats, therefore, is a simple matter, whereas the docking of a big steamer and its replacement while in dock is a matter of careful and elaborate arrangement, also of considerable expense. In the case of the steamers it is essential that they should require to be brought to dock as seldom as possible, and when in dock, remain there as short a time as possible.

Secondly, a considerable number of our flats are used for the carriage of petroleum only, and this has the effect of doing away entirely with internal corrosion, even of black steel. Our steamers are not allowed to carry bulk petroleum.

And thirdly, a flat when it reaches the scrapping stage, has no machinery, cabins, etc., which would have to be scrapped at the same time, whereas if a steamer had to be scrapped at the end of, say, 18 years, while she still had machinery in her fit to carry on for another 10 years, the remaining capital value of that machinery would be lost to the Company.

From our experience we find that, in the waters here, galvanised shell plates do not as a rule show signs of shedding the galvanising till they are

about seven years old, and can go a further two years or so thereafter without repair. On the other hand black plates shew pitting after two years and in some cases plate landings have been found affected after one year. We hold therefore that a reversion to the use of black steel would be entirely a retrogressive step, and a very expensive one. It is to be remembered that the fabrication of a vessel is the expensive item in its cost and it would be false economy to put out all the necessary large amount of labour on material which would not last.

Answers to the supplementary questions.

Q. 1.—Reference Question No. 1 of original questionnaire, what is the total tonnage in each class of the steamers which the Company at present possess?

A.—The gross tonnage in each class is as follows:—

Class 1	2	3	4	5	6	7	8	9	10
19,400	2,300	7,100	1,900	1,950	10,800	1,600	300	81,700	17,000

Q. 2.—What tonnage could be constructed per annum in the Company's existing Dockyard?

A.—This depends entirely on the class of vessels required. It is, for instance, easier, and takes much less time, to build flats than to build steamers of the same tonnage capacity. Of the vessels of which we at present undertake entire construction we could build 7 flats, 3 cargo boats, 3 steam barges, 4 small launches and 2 tugs, giving a total of about 6,500 tons. Assuming that 10 per cent. of this construction would be for outside firms, the total outturn for our own purposes would be about 6,000 tons. Our Dockyard exists primarily for the docking and repair of our own fleet and the above figures represent what could be done after allowing for same, since the maintenance and repair of the fleet must be our first consideration and cannot be done anywhere else. If, however, steamers had to be built instead of some of the flats, the tonnage figure given above would be much reduced, since a steamer would take more than twice as long to construct as one flat of the same tonnage.

Q. 3.—To what extent would the Company's Dockyard require to be extended if all fleet requirements were to be built there?

A.—This question is extremely difficult to answer owing to the fact that in some years large construction programmes are necessary, while in others very little construction is undertaken. If we assume it as possible that the necessities of construction could be so controlled as to distribute all building evenly over the various years, and if the present size of our fleet did not require to be increased, our probable annual building programme for ourselves alone would be (at an outside estimate) one large paddle steamer, one ferry paddler, one sternwheeler (every second year), four creek steamers, one steam barge, two single deckers, five flats and six cargo boats. Since the last five items represent the extreme limit of our present capacity (after allowing for the necessary docking and repair of our fleet and a small amount of outside work) the other three items, which are the largest ones, could not be built in our present Dockyard. Same is not now capable of any further extension and a new and separate establishment would have to be set up.

Necessary construction, however, never could be evenly distributed over the years, and in some cases the excess over present capacity would be much larger than indicated above, while in others our requirements might not exceed present capacity. We would therefore require to make allowance for a separate new establishment about 50 per cent. as large as the existing one, and as a natural result, the capital expenditure on the necessary ground, buildings and tools for same, would, in many years, lie idle, and would be a source of heavy loss to the Company.

Another aspect of the case is that, as our labour is largely Indian, it would be extremely difficult to collect it for a busy year after it had been disbanded in a slack one, since Indian labour, when unemployed, does not remain in Burma, but immediately returns to India.

Q. 4.—What are the particular parts of the larger steamers, which, owing to the necessity of using galvanised material, you would find difficulty in working into shape?

A.—All sections which are too heavy to work cold and require heating or furnacing. The difficulty here is not one of the size of any particular plate or angle, so much as its section. Galvanised material cannot be furnaced to bring it into shape and must be fabricated cold. The heavier sections required for web-frames, parts of boiler stools and engine seating, and such angle frames, etc., as must be welded all present difficulty in this respect.

The frames of our larger steamers are up to 34 feet long and the plates up to 16 feet.

Q. 5.—In connection with vessels imported from Europe what is the probable percentage cost of the extra erection and dismantlement necessary before shipment?

A.—Probably about 5 per cent. of cost, including double berth rent, building blocks, service bolts, superintendence, packing and removal.

Q. 6.—What amount of corrugated steel is used in a 225′ flat?

A.—10 tons.

Q. 7.—With reference to Question 3 in the questionnaire to Engineering firms, what is the nett cost of the unfabricated steel, etc., used in the construction of a 225′ flat?

A.—We have recently completed a flat of this type and can supply up-to-date figures as follows:—

	Tons.	Rs.	
Unfabricated steel	166	31,250	British.
Unfabricated steel, galvanised	44	11,000	,,
Corrugated sheet	10	3,000	,,
Other imported material		12,700	
Local material		7,600	
Fabrication (including overhead and profit)		57,450	
TOTAL		123,000	

Q. 8.—Did the Company order any vessel from Europe in 1919 for re-erection in Burma, and if so, what was the price of the fabricated steel per ton c.i.f.?

A.—No.

Q. 9.—What is the cost of fabricated material for a flat in Burma up to the point at which a flat built in Europe would be fabricated?

A.—The cost of the material and fabrication of same for a 225′ flat up to the point at which rivetting begins would be Rs. 77,350 against a completed cost of Rs. 1,23,000.

THE IRRAWADDY FLOTILLA COMPANY, LIMITED.

B.—ORAL.

Evidence of Mr. K. MacGibbon recorded at Calcutta on Friday, the 8th January 1926.

President.—Perhaps you would be able to tell us the number of vessels that you have in your fleet of the various types. Have you got a list of them?

Mr. MacGibbon.—I have got it here with me. I have also an abstract of the total number of boats in each class. (Handed in.)*

President.—That shows the number of each class, but it does not give any particulars. If there is a printed fleet list, perhaps you will be able to send us a copy.

Mr. MacGibbon.—I am afraid not. We only have a few copies and they come from home. They are all in use in our different departments, but I can give you any details that you require. I can make copies and send them to you.

Mr. Ginwala.—Have you got anywhere the total tonnage for each of these classes of vessels?

Mr. MacGibbon.—No, it could be worked out and sent to you.

Mr. Ginwala.—We should require the dimensions of the typical vessels.

Mr. MacGibbon.—Here is a note showing the tonnage and the number of passengers carried.*

President.—The position is that your flats and cargo boats, in fact all vessels that are not power driven, you make in India.

Mr. MacGibbon.—That is so.

President.—Then all other boats—apparently something like 115′ and over—are of the types you usually import.

Mr. MacGibbon.—We import classes Nos. 1, 2, 3, 4 and 6. There are certain vessels on the list just handed you, which are not mentioned in the original classification—special types such as the Salvage Boat and Rock Puncher. Also there are some 30 station hulks, which are simply converted out of our own scrapped vessels.

President.—The ones that are marked are the types that you usually import and they come to 158 out of your total fleet.

Mr. MacGibbon.—We have 158 of the types which are imported from home and 320 of the types which we build ourselves, that is excluding those odd vessels—salvage vessels, etc.—which are built only once in a very long time.

President.—So that, in numbers, it is only about a third of your fleet you usually import.

Mr. MacGibbon.—Yes, in numbers.

President.—In actual tonnage it is probably more than that, because they are of the larger types.

Mr. MacGibbon.—Yes, the imported classes. They include larger vessels and in money they are very much more, because flats, cargo boats and single deckers are very much less expensive than the larger vessels.

President.—It is only the fabricated steel parts that enter into our enquiry. The cost of the machinery is not affected by protective duties on steel.

* Statement IV.

Mr. MacGibbon.—The cost of the machinery is not in itself affected, but the fact is that a boat, to accommodate machinery, has got to be fabricated in an entirely different manner to a flat. A flat is made more or less in the shape of a box which is quite simple, but the steamer is entirely different.

President.—Messrs. Burn and Company gave us a model which we have always got before our eyes.

Mr. MacGibbon.—In the case of flats, frames are more or less exactly the same and they lend themselves easily to mass production, whereas in the case of a steamer, the vessel is shaped right from stem to stern.

President.—The flat is more or less like a box.

Mr. MacGibbon.—If you take the 115′ length steamers, which are probably the commonest type that we import just now, you will find that there are hardly any two frames which are similar, so that the fabrication of a launch or steamer is very much more expensive and very much more difficult than the fabrication of a thing like a flat and even more so when galvanizing enters into the question.

Dr. Matthai.—May I know why you imported five of these cargo flats during the past five years?

Mr. MacGibbon.—These were ordered in 1919 but they actually arrived and were put together in 1920. The reason for that is a particular one. At the end of the war, we found ourselves faced with the position of being extremely short of flats. The Government had commandeered a great many of them. We were very short indeed and we found it necessary to build 11 flats in a hurry to meet our current needs. We could not, from the point of view both of space and time, construct the whole in our Dalla dockyard. We ordered five from home and we built six at our works in Rangoon. That was a particular case, however.

President.—That was due to the special circumstances that flats were required to be completed in a given time?

Mr. MacGibbon.—That was so.

President.—Can you give us any idea of what your normal replacements would be of the vessels in your fleet?

Mr. MacGibbon.—They vary according to the class. If we take a flat, it has got to be replaced in 25 years at the outside. That is 4 per cent. and for a steamer as a 1st class plying unit it would probably be less—20 to 25 years. I think it would be safe to say 4 per cent., taking it year by year.

Mr. Ginwala.—Would it mean entire scrapping at the end of the period?

Mr. MacGibbon.—No. As I said, we take the opportunity of constructing out of a scrapped steamer something in the nature of a pontoon—landing stage or other vessel of that kind.

President.—Let us take the steamers with which we are principally concerned in this enquiry. If you build your flats in this country, you would not be affected by the duty on fabricated steel.

Mr. MacGibbon.—That is so.

President.—The duty on unfabricated steel is not before us in this enquiry.

Mr. MacGibbon.—So far as flats and barges are concerned, we are not particularly interested.

President.—Therefore, it is the steamers that we are concerned with in this enquiry. The point I am aiming at is this. Taking 20 years as the life of a steamer, that would be 5 per cent. You have told us in your answers to the questionnaire that if the 25 per cent. duty were reduced to 10 per cent., it would reduce the cost of your steamer by 3·9 per cent. In round figures, therefore, you can say that a protective duty increases the cost of your vessel by 4 per cent. Could you tell us approximately what proportion of the total cost of running a steamer would be represented by depreciation

on the value of the steamer, and interest on the capital invested on it? These are the two items which are increased by the protective duty. The other items which are not affected by the protective duty would be things like wages, coal, repairs, head office expenses and so on.

Mr. MacGibbon.—Interest, depreciation and insurance on vessels such as I am talking of, *viz.*, 115′ Creek Steamers which we are importing at the present moment in some numbers, would be £2,100 per annum. The running costs of the same vessel would be £2,250.

President.—If the life of a steamer is 20 years, it cannot be more than 5 per cent. for depreciation.

Mr. MacGibbon.—That is right. I have taken 6 per cent. for interest, 5 per cent. for depreciation and 3 per cent. for insurance.

President.—That is £2,100 for these charges and how much would it be for the other charges?

Mr. MacGibbon.—The running costs would be £2,250 per annum. But these are only average figures.

President.—So that it is a little short of half and half.

Mr. MacGibbon.—Yes.

President.—In that case, the duty on fabricated steel increases the cost of running your steamer by a little less than 2 per cent.

Mr. MacGibbon.—Yes.

President.—And it becomes operative gradually as you have to replace the vessels of your fleet.

Mr. MacGibbon.—Yes.

President.—It would not be fully operative at once?

Mr. MacGibbon.—No.

President.—The main part of the case you put before us is whereas flats and cargo boats and smaller launches and barges you make in India at present, and will continue to make them, the larger vessels you have to import and will continue to import notwithstanding the protective duty. What it practically comes to is this. For some reason or other, the larger types of vessels cannot be constructed in India.

Mr. MacGibbon.—No.

President.—I have not been able to understand clearly what precisely the reasons are and why it is that the Irrawaddy Flotilla Company think that they cannot be built in India, because undoubtedly steamers well over 100′ in length have been built in Calcutta.

Mr. MacGibbon.—As we pointed out in our answers to the questionnaire, one of the reasons is the galvanizing of the material.

President.—You have given in your answer to question 3, three reasons. It would be convenient to take this galvanising as the last of the three. The first explanation you give is "Our Home builders are entirely familiar with the construction of all the types of vessels we use and with all our requirements in connection with the detail thereof. Apart from minor improvements, orders for new craft almost always follow the lines of vessels previously built, of which the builders possess the plans and templates. It would consequently involve both trouble and expense to order vessels elsewhere." As far as that is concerned, there is no question of impossibility there. It is merely a question of convenience and expense.

Mr. MacGibbon.—Expense of course is a primary consideration.

President.—Even so, it is only temporary. Supposing you abandoned importing, you would either make them yourselves in Rangoon or purchase them in India from one of the engineering firms. In that case, either you yourselves or the firm whom you employ would acquire the necessary experience. There might be inconvenience and expense at the time of the change-over, but surely it is not a permanent disability.

Mr. MacGibbon.—No, but I think it is generally admitted that the class of workmanship obtainable from Europe is better than can be obtained here.

President.—It is your view and you are entitled to urge that. I don't think that it is generally admitted.

Mr. MacGibbon.—It is our opinion anyhow that the workmanship obtained from home is better than can be obtained in India. We construct quite a large number of vessels ourselves and that is our opinion from our own experience.

President.—Might I tell you what the representatives of the India General Navigation Company told us yesterday? They said that, as far as their Company was concerned, whenever they were making a new departure or introducing improvements in the types of vessels, they would import two or three of the new types, because they would get the advantage of the experience and skill of the home builders, and after that they would construct any further vessels of the same class which they required in their own yard in Calcutta. In certain respects, they said, the work done in India was not quite so good as the work done at home, and they particularly mentioned that they had to make their work a little heavier, and that they were not quite so good where light construction was required.

Mr. MacGibbon.—That is a very important point. Light construction is essential in shallow craft.

President.—But they believed that they could construct all the types of vessels they required in their own yard, and their largest vessel I think is 305 feet long.

Mr. MacGibbon.—There is no physical impossibility about it. Of course, it could be done. I suppose we could construct somehow or other any vessel that we use, but we could not construct it economically, nor could we construct it up to the standard which we insist on for our fleet and which is a high one.

President.—Can you develop that point a little because I want to understand just what kind of work is not so well done in India?

Mr. MacGibbon.—There is always a certain finish about frames and so forth built at home. Fabrication of frames is an important part of a vessel. It is necessary to have them very exact.

President.—You find that the Indian workmanship is not sufficiently precise, is that it?

Mr. MacGibbon.—Yes.

Mr. Ginwala.—Even under European supervision?

Mr. MacGibbon.—Yes.

Mr. Ginwala.—That is your experience.

Mr. MacGibbon.—Yes, but of course the workmanship is improving.

President.—What it comes to is this. If you had always imported your vessels hitherto your staff have had no opportunity of learning the more difficult work. If they were always confined to the simpler form of construction, it is difficult to see how they can ever acquire the necessary skill for more difficult kinds of construction.

Mr. MacGibbon.—That is so. The heavier work is more or less beyond the people out here. You are suggesting that we should go to the expense of experimenting with the labour here in order to improve it?

President.—My suggestion is really this, that I should be very slow to accept any statement of the permanent incapacity of Indians to do certain work. It is likely that they may take time to learn it. It may be some years before labour can be trained, but it does not seem to me to be a conclusive argument against the construction of these larger vessels in India. For the time being, the standard of workmanship might not be so good as the standard of workmanship in an imported vessel.

Mr. MacGibbon.—Experimental work is always expensive, that is, it would probably cost a great deal more to train the men here to do the heavier work in connection with our mail steamers than it would to bring the stuff out from home and pay the duty.

Mr. Ginwala.—Other firms have done it here. So far, the evidence is that they had no practical difficulty in training the Indian labour, both Navigation Companies and other Engineering firms.

Mr. MacGibbon.—As I say it depends on the class of workmanship that they insist on. Our experience is that these people could not do it at present, and of course I am talking about Burma where we have a limited number of men to draw on and where probably we don't always get the best of Indian labour because it naturally stays here in Calcutta.

Dr. Matthai.—Is your labour mostly Indian labour?

Mr. MacGibbon.—Yes.

President.—Even if it is not found satisfactory to build these steamers yourselves in Burma, there is still the alternative of ordering them from Calcutta. I understand that for four months in a year vessels can be towed down to Rangoon.

Mr. MacGibbon.—Yes, it has been done.

President.—So it is not a question of incurring all the expense of erecting first and dismantling in Calcutta and then shipping and re-erecting it again in Burma. It will be simply towed down.

Mr. MacGibbon.—There is the question of freight.

President.—That comes to something anyhow.

Mr. MacGibbon.—And insurance.

President.—We are rather interested on that point. We asked Messrs. Burn and Company to let us have a list of the ships they sent to Rangoon.

Mr. Ginwala.—Would it be more than the freight on the imported article and the insurance?

Mr. MacGibbon.—The insurance would be more from Calcutta to Rangoon.

Mr. Ginwala.—What about the freight?

Mr. MacGibbon.—I have no idea about the freight.

President.—I find from Messrs. Burn and Company's list that they have sent something like three or four boats of various kinds to Rangoon during the last 30 years, so that obviously there is quite a possibility of ships being built in Calcutta and sent to Burma. The second reason you give is that all the machinery must be imported. Why is that an argument against construction in India? After all, you use imported machinery in the barges and launches you make in India. If you can import machinery for launches and barges, what difficulty is there in installing imported machinery in the larger steamers?

Mr. MacGibbon.—This is simply a question of convenience only. The machinery is got from the same engineering firm at home and the vessel is made by them complete with the machinery. That, I admit, is not an important argument at all.

President.—Surely there is no difficulty in having the hull made by one manufacturer and the engine and other things by another? It is only a matter of accuracy of work and accuracy of design, is it not?

Mr. MacGibbon.—That is so.

President.—That brings us to the third reason and that is the fact that you have to galvanize a certan proportion of your plates in your vessels. Can you tell us why you have to do that?

Mr. MacGibbon.—It lengthens the life of the vessel considerably. The river water in Burma (the Delta water particularly) is very severe on hulls and we always have the plates galvanized to lengthen the life of the boat.

President.—What proportion of the plates in a vessel would be galvanized.

Mr. MacGibbon.—All the hull plates and deck plates.

President.—You galvanize the whole of the hull?

Mr. MacGibbon.—Yes, in the steamers.

President.—Why do you not find it necessary in the case of a barge or a launch?

Mr. MacGibbon.—Launches too; in all steam-driven vessels.

President.—But then you build these yourselves?

Mr. MacGibbon.—These are small launches and the shaping of the parts is not very difficult.

President.—But I understood that galvanizing could not be done in India?

Mr. MacGibbon.—We import the galvanized plates and shape them in Rangoon. That is all very well where there is very slight shaping to be done, but when it comes to extensive shaping, which has got to be done cold, the continuous hammering necessary to get the particular parts into shape would destroy the galvanizing.

President.—That, I take it, is your most fundamental reason for importing?

Mr. MacGibbon.—I would not say entirely, but it is a very important matter. As we have mentioned, we also attach some importance to the fact that our suppliers at home have been familiar with our requirements of vessels for many years and they know exactly what we want, and it saves us a great deal of trouble when we want to renew such and such a type of vessel or when we want them to design a new type of vessel for us.

President.—I admit it is convenient to deal with people who know your business but there is no reason why your vessels should not be built in India if it is merely a repeat order, because once your dockyard has become familiar with a thing, you can get it done here. However, we have dealt with that point before and we need not go over the same grounds again. But as regards galvanizing, I may put it to you this way. Supposing for some reason, it becomes a physical impossibility to import, how are you going to deal with the matter? The assumption is that you would be compelled to build in India, what would you do to get out of the difficulty?

Mr. MacGibbon.—You mean if we are unable to obtain galvanized plates from any source whatever?

President.—Supposing you could not import and have to build in India somehow, would you abstain from using galvanized plates and make the plates thicker or would you endeavour to galvanize in India?

Mr. MacGibbon.—There is no galvanizing plant in Burma at all. We cannot do that. In the remote possibility suggested by you, I suppose the cheapest thing would be to erect a galvanizing plant. If it became impossible to get galvanized plates, some enterprising people might start a galvanizing plant in Burma.

President.—Not very long ago the Tariff Board had before them application for protection from the galvanizing industry. The evidence we had in that enquiry was that there was not a big demand for galvanizing work in India and if it is doubtful whether even in Calcutta the demand is sufficient, I should imagine that the demand in Rangoon would be smaller, and therefore continuous working of the plant would be problematical. There is the waste of spelter and so on to be considered.

Mr. MacGibbon.—I don't think there is room for a galvanizing plant in Burma.

President.—Then you do regard this difficulty about galvanizing as a serious one?

Mr. MacGibbon.—Yes.

Mr. Ginwala.—I take it your firm has a very long experience of shipbuilding in India?

Mr. MacGibbon.—Fairly long. The dockyard was started originally for repairs in 1868 but it was a very small affair in those days. It was originally with a view to repairs and docking that the dockyard was acquired.

Mr. Ginwala.—When did you start building your own craft?

Mr. MacGibbon.—Our first flat was built in 1902 and I think the second one, two years after that, and with the experience we thus acquired we ultimately came to the conclusion that we could build flats cheaper in Burma. I think the building of cargo boats goes slightly further back, about 1899.

Mr. Ginwala.—Then you had to train Indian labour for the purpose and you succeeded in training that labour, so far as the kind of craft you build in the country are concerned?

Mr. MacGibbon.—Yes.

Mr. Ginwala.—But you don't think that you would be able to train your Indian labour further to build bigger craft, though of course, as I have already said, the experience of other firms out here is different?

Mr. MacGibbon.—I suppose we could get labour which could be trained to build bigger vessels than we do now.

Mr. Ginwala.—The India General Navigation Company said they could build vessels 305′ × 71′ 6″ × 10′ 6″, and Messrs. Burn and Company have built the same kind of thing that you use.

Mr. MacGibbon.—They are ungalvanized.

Mr. Ginwala.—Leave alone galvanizing for the present. We put the question to Messrs. Burn and Company and they said they could build these and they have given a very long list of orders they have carried out in the past which substantiates their statement that they can build big river craft. Except that you feel that it may be difficult to train Indian labour you have no really strong ground for thinking that equally good work cannot be turned out in Burma. Is not that so?

Mr. MacGibbon.—I suppose we should be able to build boats ultimately as large as Messrs. Burn and Company build with trained Indian labour. I don't know what the labour conditions are here, how efficient it is and so on. I have no experience.

Mr. Ginwala.—As you know, shipbuilding is a part of the engineering industry and there is a good deal of engineering work done in Calcutta and other parts of India and it has been possible for firms to get sufficient Indian labour for engineering works of all kinds.

Mr. MacGibbon.—There is one point which you have perhaps overlooked in connection with this question why we cannot do what Messrs. Burn and Company can do and that is this, that labour in Rangoon is very much more expensive than here and it would cost us a great deal more than what it would cost them.

Mr. Ginwala.—But then you would charge higher rates for your products than they would do in Calcutta.

Mr. MacGibbon.—I am speaking of boats for our own use. That is a serious point about labour in Burma. I don't know whether the Board quite realize how much it means.

Mr. Ginwala.—I have lived 20 years in Burma and I ought to know something about it. But that is not the point because that will take us into a very big field of enquiry. It would raise the whole question of cost of living and so on in Burma.

Mr. MacGibbon.—You are asking us whether we could not build large vessels just as cheaply in Burma as Messrs. Burn and Company do in Calcutta. Even supposing we can build them, it is going to cost us more and it would still be cheaper for us to get them from home.

Mr. Ginwala.—They can be built in India. If you cannot get labour in Burma as cheaply as you do in Calcutta, then the question arises why you should not send your orders to India where the work can be done for you?

President.—It is apparently economical for you to build flats and launches in Rangoon notwithstanding the high wages you pay to your labour and I don't think it is an argument against building in India, because if the high wages do not count in the case of launches and flats, there is no reason why it should count in the case of vessels.

Mr. Ginwala.—Your idea seems to be that, even if you could train the labour in Burma, it would be more expensive to carry out the work in Burma than in Calcutta?

Mr. MacGibbon.—It would naturally be more expensive.

Mr. Ginwala.—But, on the whole, if there was no question of galvanizing to be considered, would it be more economical to build in Burma than getting them out from Europe?

Mr. MacGibbon.—I should not think it would be.

Mr. Ginwala.—You have found no difficulty in the case of the smaller craft?

Mr. MacGibbon.—These smaller crafts, flats, cargo boats and so on, are different. There is not the same amount of detail and precision required as in the case of the larger vessels. Flats are the only large vessels we build in Burma because they are of simple construction and within the scope of the labour we have available there and of course the frames of our flats are not galvanized.

Mr. Ginwala.—Judging by your own experience, it does not seem as though it costs you more to build in Burma than it would in Europe.

Mr. MacGibbon.—Our position I think I can safely say is this, that we would build everything we possibly can build in Burma provided the costs are the same or less than that at which we could import. We are a business concern and we would naturally buy in the cheapest market. If we are buying certain of our boats from home now it is because we are making a better bargain. It is the question of cost that really counts and when I talk of cost, I am not thinking only of original cost. Efficiency in the running of a boat counts. That has to be considered along with the price that we pay. That is, we take the cheapest all-round proposition including original cost, probable length of life of a steamer, efficiency that would be obtained in running it—taking all these into consideration we order from home.

Mr. Ginwala.—But have you given yourselves a chance by trying to build them here?

Mr. MacGibbon.—We carried out a very large programme of work last year. We built vessels of the value of Rs. 23¼ lakhs in our dockyard last year. That surely is a big sum.

President.—That was all more or less confined to smaller crafts.

Mr. MacGibbon.—They were all economically and satisfactorily built in Burma. I can tell you what they were. We built seven flats, two steam barges and three single deckers for ourselves. We built for other people one steam launch and two barges. We were also just completing the re-erection of two creek steamers imported from home and I have included them in our last year's figures. The total value of the work including these is Rs. 23¼ lakhs. Our programme for this year, even as already foreshadowed, is somewhere in the neighbourhood of Rs. 17 lakhs for ourselves, so that we are certainly training labour. There is no doubt about that and with such a large programme as that it becomes a question of room ultimately, if you suggest that we should build everything in Burma.

Mr. Ginwala.—What is your capacity? Let us take the length.

Mr. MacGibbon.—The largest boat we built is a 225′ flat.

President.—Taking the length of slipways, depths of water into which you launch, etc., what would be your capacity?

Mr. MacGibbon.—That I could not say. We can re-erect any vessel, so far as room is concerned. The biggest thing that we have ever undertaken is a 325′ mail steamer, that is, re-erection and launching.

Mr. Ginwala.—On that score there is no difficulty.

Mr. MacGibbon.—No, if we do one at a time only.

Mr. Ginwala.—What is the total capacity in tonnage you can turn out in a year?

Mr. MacGibbon.—That depends entirely on circumstances. Last year we built, for instance, mostly flats. The tonnage of each of these flats is 770 tons and we built seven of them. With the steam barges and single deckers, these come to about 6,000 tons. The other two launches which we re-erected are 300 tons. You can put a 100 tons down for the rest of the outside work.

Mr. Ginwala.—That comes to 6,500 tons.

Mr. MacGibbon.—Yes. On the other hand, you must remember that a flat is 770 tons for a length of 225′. A mail steamer is 1,600 tons for a length of 325′, but the mail steamer occupies the berth very much longer. You can turn out several flats in the time you re-erect a mail steamer, so that tonnage outturn depends largely on the class of vessel which is mostly being constructed in any particular year.

Mr. Ginwala.—As far as your own Company is concerned, I don't want you to commit yourself to any exact figure, but how much would you require, in tonnage, in a year by way of replacements and renewals of your own fleet?

Mr. MacGibbon.—It is very difficult to say, in tons. Our programme for this year consists of entirely different types from last. We are not doing any flats.

Mr. Ginwala.—Therefore, I don't want you to commit yourself to any particular figure.

Mr. MacGibbon.—Flats upset the calculations. If you bring in flats in large numbers, you swell your total at once, if you take it by tonnage, though the actual work and time involved are less.

President.—On thinking it over, you might be able to give a satisfactory answer. You have told us what you think the average life of a flat is. Here you have given the total number which is 120. If you have 120 flats and if the average life of a flat is 25 years, then you are replacing five a year. If you apply the same kind of ratio to the other things, you can get an average figure and arrive at what your tonnage will be.

Mr. MacGibbon.—I think if we take last year's figure, *viz.*, 6,500 tons, it would be about the maximum.*

Mr. Ginwala.—You have given 770 tons as the capacity of the flats. I want you to convert them into steam launches. What I want to know is this. We want to get some idea of your capacity to build ships as you are equipped at the present moment. Then we want to find out what your requirements are and, therefore, how much extension you might require in order to cope with all your requirements in the country. That is roughly the kind of information that we should like you to give.

Mr. MacGibbon.—Is it not enough for you to know (since we are erecting everything we can) what our present capacity is? That indicates it sufficiently, 6,500 tons.

President.—The only thing is this, if you are going to build your steamers in India, they will be occupying the space in the yard longer than they do at present.

Mr. Ginwala.—I will tell you what the other Company have told us. They say that they would save two months by importing.

Mr. MacGibbon.—Yes.

*Statement V.

President.—That is to say, the yards were occupied for a period less by two months.

Mr. MacGibbon.—That again is rather a sweeping statement. It depends entirely on the size of the boat.

President.—It would not apply to all kinds of steamers?

Mr. MacGibbon.—If you said that 25 per cent. of the time required or something of that sort would be saved, it would be more reasonable. You cannot really lay down a definite figure like two months for all types.

President.—In percentage how much time do you save, supposing you have to build here a double decked creek steamer?

Mr. MacGibbon.—It will take us about 4 months. . . .

President.—That is to say, to finish the whole thing?

Mr. MacGibbon.—That is to finish the the re-erection of the imported vessel.

Mr. Ginwala.—How much time would you take to build it here?

Mr. MacGibbon.—The trouble is we don't import the types we build. We have no material for comparison. I cannot really say how long it would take.

Mr. Ginwala.—Supposing I give you an order for a creek launch of 115′, how long will it take you to supply me?

Mr. MacGibbon.—I think we should probably take nine months.

Mr. Ginwala.—That is to say, you would take five months more.

Mr. MacGibbon.—Yes, again it depends on whether the boats have got extensive cabin accommodation and electric light, or other elaborate fittings.

President.—You may be able to give the information which Mr. Ginwala wants in a rather different form. Take it this way. Let us suppose that for some reason you have got to build the whole of your steamers from start to finish in Burma. Could you do that in your existing Dalla dockyard or to what extent would it require to be extended?

Mr. MacGibbon.—There is no doubt that at present in our Dalla dockyard space is fully engaged. Unless we were able to make arrangements whereby we modified our constructional programmes, so that the bigger units came into the slacker years in our present classes of work, the dockyard is incapable of building all our requirements.

Mr. Ginwala.—Even if you didn't take any outside order?

Mr. MacGibbon.—Yes. Outside orders don't count very much.

Mr. Ginwala.—Can you give us any idea by what percentage you will fall short of your requirements?

Mr. MacGibbon.—I really cannot. It is a little difficult and I am not a dockyard man. I cannot answer that question with authority, but I can easily get the information.*

Mr. Ginwala.—We would like to get some idea of your capacity.

Mr. MacGibbon.—I can certainly get something more definite than I can offer just now myself.*

Mr. Ginwala.—Dr. Matthai asked you about the importation of five flats. What I want to know is whether you made any attempt to secure these flats in India.

Mr. MacGibbon.—We made no attempt. The duty was not on then.

Mr. Ginwala.—May I take it that if you cannot build any craft in India yourselves, you generally go home for it and you don't make any enquiries in India.

*Statement V.

Mr. MacGibbon.—No.

Mr. Ginwala.—Is there any reason?

Mr. MacGibbon.—There is no one here to build them according to our ideas?

Mr. Ginwala.—What do you mean? Is there no one to build flats and things like that according to your ideas in India?

Mr. MacGibbon.—Flats could probably have been built here, but we are convinced that we can get things cheaper from home. When these things were ordered, the new duty was not on.

Mr. Ginwala.—The duty may be an incentive to get things done here.

Mr. MacGibbon.—That is another point altogether. Are you trying to protect Indian labour or Indian steel? You are trying to force us to train Indian labour since we cannot get Indian steel. That is your point more or less.

President.—That does not follow at all. You say that flats cannot be made in India to suit your requirements, but you never tried.

Mr. MacGibbon.—We know pretty well what can be done.

President.—But you have yourself admitted that labour is cheaper in Calcutta than in Burma.

Mr. MacGibbon.—I said labour was cheaper.

President.—What I gathered from what you said earlier was that perhaps labour in Burma was not quite so good as in Calcutta.

Mr. MacGibbon.—It may be. I have no experience of Calcutta. I am unable to express any opinion about it.

Mr. Ginwala.—What it comes to is this. It was unnecessary for you to make any enquiries in India for your requirements, because there was no duty, that is one thing and, secondly, because you had your own manufacturers at home. These are the two points.

Mr. MacGibbon.—Yes and because we are convinced that we get a very much more satisfactory job from home.

Mr. Ginwala.—When you have not ordered anything in India and when you have not used it, is it reasonable to say that you cannot get any article turned out here that will meet with your approval?

Mr. MacGibbon.—We do think that we get better stuff from home.

President.—That hardly applies to flats, because you don't usually get them from home. What it means is the Burma flat is good enough for you but the Indian flat is not.

Mr. MacGibbon.—It is a question of price again. If we are to decide between our regular suppliers for many years at home and another firm whose work we have no experience of and whose work is probably not a bit cheaper, then we, as business people, naturally go to the person from whom we expect to get the best job at the best price. Besides, we were in a hurry at that time. That was the sole reason for the job going home, and not being done in Burma.

Mr. Ginwala.—That is a different matter if you thought that by placing the order in India you could not get delivery in time. Those are special circumstances. But you have not made any attempt to find out whether your requirements can be met in the country.

Now as regards this galvanizing, what is the greatest length of the plate that will have to be galvanized for your purposes?

Mr. MacGibbon.—I have not that information here. I can send it to you later.*

*Statement V.

Mr. Ginwala.—We have been informed that plates 12 to 15 feet long can be galvanized in Calcutta and we want to know whether that would be within the range of your requirements.

Mr. MacGibbon.—I cannot say off hand.

Mr. Ginwala.—Supposing you had to galvanize plates, would you install a galvanizing plant? Would it be very expensive?

Mr. MacGibbon.—We have never made any effort to find out what a galvanizing plant costs and what it costs to run it.

Mr. Ginwala.—One of the witnesses told us that the plant was not expensive but that the process was.

Mr. MacGibbon.—It means of course the training of special labour.

President.—If you had not enough work to keep the plant constantly employed, it would become expensive because some of the spelter would be wasted.

Mr. MacGibbon.—Look at our particular case in such circumstances. We sometimes do not import any vessel in the course of 18 months.

Mr. Ginwala.—I take it that the main reason for galvanizing some parts of your vessels is the corrosion which the delta water causes. Is it due to the acid in the water?

Mr. MacGibbon.—It is due to some chemical in the water. I don't know what is the particular thing that causes it. I suppose all delta water is more or less like that.

President.—They have not found it necessary to adopt that in Bengal and Assam. One does not quite see what particular reason there could be, why the water of one delta should be more deleterious than the water of another.

Mr. MacGibbon.—Neither do I, but the people on this side may not consider that their fleets should be kept up to the same standard as we do. If we don't galvanize, then we have got to keep on replacing plates. It is a question whether we are going in for the initial expense of glavanizing the material or whether we are going to increase our docking costs year by year in replacing plates which have gone bad.

President.—Take a company like the India General Navigation and Railway Company. They are exactly in the same position as your Company. They are also business people. They will adopt it if they think that it will pay them. Evidently it pays them better not to galvanize. They are probably using slightly heavier plates believing that the cost of repairs will be less than the cost of galvanizing.

Mr. MacGibbon.—The question of galvanizing received our careful consideration. It is the opinion of our experts that it should be so. With reference to the suggestion that one delta water should be very much the same as another, I may mention that we have a fleet of small launches in Moulmein which is only a few miles away from Rangoon. The two rivers enter the sea at nearly the same place, yet a vessel could stay out of dock three years in Moulmein to one year in Rangoon and not show any more deterioration, though they are of the same type. So that there is something in the water.

Mr. Ginwala.—Are you talking of the vicinity of Rangoon?

Mr. MacGibbon.—Yes.

Mr. Ginwala.—But I understood that it was in the delta.

Mr. MacGibbon.—In the delta, in the neighbourhood of Rangoon, I mean the vessels plying from Rangoon.

Mr. Ginwala.—Do you mean the steamers plying between Rangoon and Mandalay, Rangoon and Henzada and Rangoon and Bassein?

Mr. MacGibbon.—Yes.

Mr. Ginwala.—On the Moulmein side you don't have to galvanize your material.

Mr. MacGibbon.—We don't make any distinction. As a matter of fact

the fleet that we run at Moulmein, we did not build them, and these are all ungalvanized.

Mr. Ginwala.—When did you start using galvanized materials?

Mr. MacGibbon.—It goes beyond the life of the present fleet anyhow.

Mr. Ginwala.—You say that the use of galvanized material lengthens the life of a vessel. Supposing you don't do galvanizing, I take it that you will have to write off your depreciation at a higher rate.

President.—I take it that it is rather the life of individual plates that is shortened by not galvanizing rather than the life of the vessel.

Mr. MacGibbon.—I was going to say that.

President.—It means higher repairs.

Mr. MacGibbon.—Yes, except that you will ultimately have to decide earlier whether there are too many plates requiring to be replaced or repaired to make it worth while.

Mr. Ginwala.—What does it represent in terms of money?

Mr. MacGibbon.—It is very difficult to put it in terms of money.

President.—Have you got others which are not galvanized?

Mr. MacGibbon.—We have some which are not galvanized.

President.—Flats, for instance, are not galvanized.

Mr. MacGibbon.—Our flats are docked once a year. It is not only the expense of replacing plates that counts. It is also the expense of bringing the vessel into dock and the waste of time while it is docking. The longer we can make our steamers last without docking the better it is. With flats it is different.

President.—It is not obvious why it is necessary in the case of a steamer and why it is not necessary in the case of a flat.

Mr. MacGibbon.—A flat is more easily docked, that is to say, there is not the same expense involved in docking a 200 ft. flat as there is in docking a 200 ft. steamer. A steamer is a more valuable unit than a flat to have out of commission during docking, is more difficult to replace and takes longer to overhaul.

President.—The fact that you galvanize one type of vessel and not another suggests, does it not, that there is not a great deal in it?

Mr. MacGibbon.—As I said before, from the experience of our technical advisers we go in for this.

Mr. Ginwala.—There are the Burma Railways, for instance. They have got, as you know, a ferry service at Henzada. They get their ferry boats built here. They don't have any galvanized hulls, do they?

Mr. MacGibbon.—I don't know.

Mr. Ginwala.—Henzada is in the Delta?

Mr. MacGibbon.—Yes, at the top of it.

Mr. Ginwala.—The Railways are able to use them.

Mr. MacGibbon.—There is no question of not being able to use ungalvanized hulls. It is only a question of *how long* you can use them.

Mr. Ginwala.—If it was the case that they required frequent replacement of plates, the Burma Railways would not think of using a ship which had not galvanized plates. As far as you know, have they got any spare ferries?

Mr. MacGibbon.—I know very little about them.

Mr. Ginwala.—I am just trying to point out that if it was the case that those plates which were not galvanized required frequent replacement, the Burma Railways would not ordinarily use ungalvanized plates.

Mr. MacGibbon.—After all we *want* galvanized plates. Why should we be forced to do without them? You are suggesting, by means of the tariff, to force us to do without them.

President.—In protection there is always a certain degree of compulsion involved.

Dr. Matthai.—I want to be clear about the reason for your importing these steam vessels of over 100 feet. What you say is this that even if it costs you more to import that type of vessel from England than it costs you to build in Burma, you would prefer to buy the imported vessel because in point of quality that vessel is much better. Is that your position?

Mr. MacGibbon.—Yes, we consider on the whole that the workmanship is better.

Dr. Matthai.—As a matter of actual fact, what do you think is the position? If you import to-day a vessel of that type, would the English c.i.f. price be less than what it would cost you to build? Is it a double advantage if you import it now?

Mr. MacGibbon.—In so far as inexperienced labour is more expensive, I should think the home price would be less.

Dr. Matthai.—With regard to the other kinds of vessels of under 100 feet, what is the position now? Supposing I put it to you this way: you can build in Burma vessels of equal quality with imported vessels and it is cheaper to build in Burma, would that be correct?

Mr. MacGibbon.—We have trained the labour for that kind of work. We have been training it for years to do that.

President.—To go on to another point. What you have suggested in your representation is that the smaller classes of vessels do not require protection because it is cheaper to build them in India and that the larger ones do not require protection because they won't in any case be built in India. Supposing we accepted that view, would it be possible in the tariff to discriminate in that way between a larger vessel and a smaller vessel? Supposing we said that materials intended for a vessel of 130 feet would pay a protective duty and those above that would not. Is that a practical proposition at all?

Mr. MacGibbon.—It might force a man wanting to build a 130′ boat to build a 132′ boat.

President.—Supposing we took your figure of 100′, then in order to escape the duty, he would have to add 32′ to his boat which would be expensive if what he wanted was only a 100′ boat.

Mr. MacGibbon.—Yes. That would be raising the whole thing beyond the class which is most commonly made by us out here. The vessels that are usually built in Burma are launches of 60′ to 85′, tugs up to 90′ and so on.

President.—As regards your 100 feet as the limit, you would have to put up the tariff limit a little higher anyhow to prevent the obvious evasions. Supposing it was 110 feet, would that be sufficient to prevent the evasion? Would that be a workable arrangement at all? Would the Customs people be able to work it?

Mr. MacGibbon.—I think in Burma they could do it easily, as we are practically the only importers of river craft.

President.—I am afraid we cannot consider only Burma. In the case of every importation, they may have to satisfy themselves that it comes within the prescribed dimensions.

Mr. MacGibbon.—I can foresee difficulties in India if the import of these vessels is likely to be big at all.

President.—There is a certain anomaly in that. There may be a vessel of a very special type which cannot be made in India. It might be less than 100 feet long. It then becomes subject to the protective duty.

Mr. MacGibbon.—We have got some types of vessels like that, Rock Punchers, Salvage vessel, etc.

President.—These are special types.

Mr. MacGibbon.—Yes, all under 130′.

President.—What I am asking you is would there be any practical difficulty in differentiating like that? I have no idea what the import of vessels into India amounts to at all.

Mr. MacGibbon.—If it were carried on to any extent I think the Customs authorities would not like a system of that sort but we ourselves would be quite prepared to accept that; it would not adversely affect us at all, and I think I can safely say, we are the people who are most considerably concerned with the question of the duty on inland vessels.

President.—The India General Navigation Company say that the total number of vessels in their fleet is a little more than 600. Very few vessels have been replaced in the last 30 years and the vessels built and purchased have increased the size of the fleet. Apparently even in the absence of galvanized plates, the vessels have lasted pretty well. However, I only wanted to refer to this point about possible discrimination. I think there might be very great difficulty about working a system of discriminating according to size, and also it is illogical to suggest that Indian shipworks should not build beyond a certain length. That is a very strong step to take. However, I don't regard it as very important. Let us go on to another very important point. The whole question is, whether protection is required? The position the Board took up in the original enquiry was that they were not satisfied at that time that it was required. Since then circumstances have changed and on the whole the changes have been such as to favour the foreign manufacturer, that is to say, the rupee sterling exchange has risen and there has not yet been, so far as we know, any such re-adjustment in wages and so on as to bring things to a level. In order to come to some conclusion about that matter, it is of great importance to see if we can in some way get comparative figures for the cost per ton of the fabricated steel work in an Indian vessel, according as it is made in India or in England, and that is why in the questionnaire we endeavoured to get figures of that kind. We have not been very successful. Your statement is that you can never get a comparison as any one type is either built in India or in Europe. The India General Navigation Company say they have not imported anything in the last 5 years, nor have they built in India, and therefore they cannot give any comparison. The engineering firms can give the cost of building in India but they cannot say what it costs to import.

Mr. MacGibbon.—If you want to get beyond the years you ask for, say 1919—

President.—In 1919 prices were abnormal.

Mr. Ginwala.—Can you give us the pre-war years, say 1913, for purposes of comparison?

Mr. MacGibbon.—No. I can give you for 1919.

President.—It might be useful if you could give us for the steel work in a flat.

Mr. MacGibbon.—We can only give you the difference in total price. When we imported we get an invoice for, say, £10,000. We didn't know how much of that was fabricated materials and so forth but we can give you the difference in the finished price of the two flats, one brought out from home and the other built here—Rs. 10,000.

President.—Which was the more expensive?

Mr. MacGibbon.—The home one. You said that plates, labour and so forth where very abnormally charged at home at that time, but the flat we built was constructed with imported steel also at the abnormal price, which levels the two things up. The price of fabricated steel was high at home but so was the steel we imported for the flats we built here.

Mr. Ginwala.—And you make a difference of Rs. 10,000 in your favour?

Mr. MacGibbon.—Yes.

President.—You have given us figures for the average cost. You say in answer to question 13 " The present average c.i.f. cost of the fabricated steel

parts of imported vessels chargeable to duty at 25 per cent. varies according to the size of the vessel concerned but it is roughly between Rs. 720 and Rs. 840 per ton to which duty has to be added." These figures look very high indeed. How exactly have you arrived at them?

Mr. MacGibbon.—Here is the invoice (produced). The total tonnage is 70 tons. Total price £4,151. The thing about this figure is that, when we make a contract to purchase a vessel at home the total amount of the invoice presented to us does not represent only the actual value of the fabricated steel as such. This figure includes fees for designing the vessel; it includes builders' profit; it includes erection at home, dismantling there (all extras) and it also includes of course a percentage—whatever it is—of their overhead charges.

President.—Except the erection and dismantling, it is the same for all engineering works. When it is the repeat of a previous type there is no special charge for designing in that case?

Mr. MacGibbon.—No.

President.—These creek steamers are one of your ordinary type, aren't they?

Mr. MacGibbon.—Yes.

President.—In this particular case is there any departure in the design?

Mr. MacGibbon.—Not a very great deal. They were all ordered more or less of the one design.

President.—Will you give me the figure of the tonnage of steel in the creek steamer?

Mr. MacGibbon.—70 tons.

President.—Is that all steel?

Mr. MacGibbon.—There are one or two small items but they can be taken as negligible. It is practically all steel.

President.—May I have the figure in pounds given for the cost of the steel?

Mr. MacGibbon.—£3,950 *plus* freight about £200 or a total of £4,150.

Mr. Ginwala.—What is the amount of the insurance?

Mr. MacGibbon.—£8.

President.—That will make just under Rs. 800 a ton. Taking the fabricated steel work of a flat—you have given us a figure about that—would it be possible to work out and let us have the cost of the fabricated steel in the flat that you built yourselves? It may only be an approximate figure and I think you may be able to give that off-hand.

Mr. MacGibbon.—I think we have given you that.

President.—What you have given is for a cargo flat of 770 tons. 40¼ per cent. is the unfabricated steel. Fabrication and erection is 38 per cent. but unless fabrication and erection can be broken up in some way it won't be comparable with the figure for the imported fabricated steel.

Mr. MacGibbon.—I shall get that for you.*

President.—I would like to have that as regards your cargo flat. What I would like to get if possible would be this, to get the cost of the fabricated steel work in a flat as nearly as possible at the stage at which the imported stuff would arrive.

Mr. MacGibbon.—I shall endeavour to give that though it may be difficult.*

President.—It may be difficult, I quite recognise that. What Messrs. Burn and Company have given us is this:

	Rs.
" Approximate rate per ton for finished steel work of a typical I. G. flat whilst lying on blocks . . .	325
Flat complete afloat and equipped	150

*Statement V.

It should be noted that these prices are for plain straight barge work and in the case of power craft these figures would be enhanced anything from 20 per cent. to 35 per cent."

Flat complete afloat and equipped obviously cannot be compared with the c.i.f. cost. It is the other figure that is approximately comparable.

Mr. MacGibbon.—You want the figure for the material and labour up to rivetting of steel plates. We collect all our fabricated plates and angles together before we take them on to building berth. Up to that point we could probably give you fairly accurate figures.

President.—Even supposing it is not absolutely accurate, at any rate, you might be able to give us a figure pretty close to that.

Mr. MacGibbon.—Yes.*

President.—Taking their figure of Rs. 325 for a flat built in India, it comes to a little over Rs. 400 a ton or say Rs. 450 for a power vessel as against your figure of Rs. 720 to Rs. 840 for the imported stuff. If these figures could be directly compared, clearly there is no need for protection. Of course, one has got to remember that your vessels are already galvanized and that would add very considerably to the cost.

Mr. MacGibbon.—It would.

President.—The only way of determining what difference that makes is, as far as I can see, to compare the cost of ordinary black sheet with the price of plain galvanized sheet. Then you would get some sort of idea what addition to the cost, the cost of galvanizing is. The difference in the price between ordinary black sheet and galvanized sheet would give a fair idea of what the British manufacturer charges extra for the galvanized material instead of the plain material. I don't know any other way in which one could guess the difference.

Mr. MacGibbon.—The difference is roughly £6 a ton f.o.b. Then there is a difference in freight too.

Mr. Ginwala.—They have to pay a higher rate of duty?

Mr. MacGibbon.—Yes.

President.—Making allowance for the wastage, the extra charge for using galvanized plates rather than ordinary plates would be something less than Rs. 100 a ton.

Mr. MacGibbon.—Yes.

President.—Even so, if you deduct Rs. 100 from your average figure of Rs. 780, that brings you down to Rs. 680, whereas Messrs. Burn and Company's figure is only Rs. 450 for a power driven vessel.

Mr. MacGibbon.—But then how do their overhead charges and profits go on to the price given here?

President.—They have given the cost of the vessel. I think we were told by their representatives that these were prices they would like to get for their vessels. That being so they have divided up in percentages the cost of the unfabricated material and other imported materials and so on. I take it that all the overhead charges and profit, if any, comes under fabrication and erection entry. That is the place where it would accrue. The figure they have given for the cost per ton of fabricated steel is a little higher than I had worked it out on the data they had supplied. They looked to me as if they had not made sufficient allowance for their overhead and so on. I cannot ask you to accept these figures, but I am bound to put them to you to explain the kind of difficulty the Board are in in making up their mind.

Mr. MacGibbon.—I have supplied you with a figure now.

Mr. Ginwala.—According to that you don't need any protection. The British manufacturer would require protection against you.

* Statement V.

President.—Messrs. Burn and Company expressed an ardent desire to build vessels for you at Rs. 840 a ton, but they are not in a position to galvanize the material. It has been the position from start to finish in the case of inland vessels, we can't get comparative figures.

Mr. Ginwala.—Is it possible that in your invoice there is something very unusual included?

Mr. MacGibbon.—Nothing more than the cost of erection and dismantling at home if it was to be erected here. You have got three processes, you have got to erect it, dismantle it and then re-erect it.

President.—There is one other thing on which you might probably throw some light. In 1919 you ordered five flats from home and in the same year or in the following year did you order for any steam driven vessels?

Mr. MacGibbon.—I don't think so.

President.—What I was thinking of is this. Messrs. Burn and Company can tell us from their own experience of how much extra the fabrication cost of a steam driven vessel as compared with a flat is. You have already told us that fabrication work is more difficult and expensive in a power driven vessel than on a thing like a flat. You unfortunately cannot give us what we want. What I am trying to get at the moment is just what the extra cost in percentage is on a power driven vessel as compared with a flat. If you had ordered a power driven vessel in 1919, we might be able to get a comparison as to the increased cost, in percentage, of the fabricated work in a launch. That was the only reason why I asked that.

Mr. MacGibbon.—I cannot say whether we did or not. Even if we did, I can not give you any figures for that now.

President.—You have already told us the rate for fabricated steel which varies from Rs. 720 to Rs. 840 a ton. Would it be higher or smaller on your big mail steamer or on your creek steamer?

Mr. MacGibbon.—Higher per ton on the creek steamer than on the big mail steamer, because there is not so much shaping in some of the material for a big steamer.

President.—It would be useful if you could give us the total quantity of unfabricated steel that you use in making cargo flats.

Mr. MacGibbon.—Do you mean the original total quantity of steel required to build a 225′ flat?

President.—Yes.

Mr. MacGibbon.—208 tons to 210 tons.

President.—The reason why I ask you that is Messrs. Burn and Company gave us figures for their 240′ flat. I will give you its dimensions:—

Length 240′, beam 35, depth 9′.

whereas the dimensions of your flat are:—

Length 225′, beam 34 and depth 9′.

The beam and the depth are the same, though in point of length it is a little shorter, but there is a very great difference in the quantity of steel used. They say they use 334 tons.

Mr. MacGibbon.—Is that for plates and angles alone?

President.—I will tell you how it is made up.

	Tons.
Steel plates	198
Angles, etc.	105
Galvanized plates, etc., for roofing and so on	25
Bars	6.6
TOTAL	334

Mr. MacGibbon.—I am not including 10 tons of corrugated sheets in our total, only plates and angles.

President.—Why not?

Mr. MacGibbon.—That will make it 218 tons.

President.—The point is rather this. They have given the cost of their unfabricated steel. It works out to something like Rs. 53,727 and by applying your percentage of 40¼ per cent. I worked out the approximate cost of your steel as Rs. 51,118.

Mr. MacGibbon.—That is correct.

President.—The dimensions of the two vessels being approximately the same, the cost was also approximately the same. It looks as if the two things fitted together well enough, but if our tonnage is very much smaller, then your cost per ton must be higher.

Mr. MacGibbon.—Yes.

President.—I don't understand why the cost of unfabricated steel per ton should be so much higher, because after all the price of steel in India and Burma is regulated by the price of imported steel.

Mr. MacGibbon.—There again how do Messrs. Burn and Company treat their overhead and profit?

President.—There is no question of profit. It is merely the cost of unfabricated steel. They don't allocate the profit at that stage. In giving these percentages have you spread the profit over all these items?

Mr. MacGibbon.—Yes. We have taken the total cost and divided it into fabricated steel and so on. Consequently, as the total cost of Rs. 1,27,000 includes the overhead and profit, the total of each individual item mentioned includes a share of overhead and profit.

President.—If you have adopted that system it will explain the discrepancies between your figures and those of other firms in Calcutta. It would be useful if you could revise these percentages. The only two items that really matter are fabrication and erection and steel. I don't think the other things really matter.

Mr. MacGibbon.—Yes.*

President.—As regards your answer to question 11 of the other questionnaire, have you adopted the same system there?

Mr. MacGibbon.—Yes.

President.—That again in a way accounts for the higher figure per ton of fabricated material. I was just wondering whether it would not be better to have it in rupees instead of percentages. The percentage method was an attempt to get the figures of the various firms on some common basis. I do not know whether we have been particularly successful. It has created a great many more riddles. I think it would be really better if you could give us in rupees leaving out the profit.

Mr. MacGibbon.—Yes, I can get you that.†

President.—There is just one small point which has not been brought out. When was this creek steamer for which you gave us the cost imported?

Mr. MacGibbon.—In August 1925.

Mr. Ginwala.—What type did you say it was?

Mr. MacGibbon.—No. 6, creek steamer, 115′ in length.

President.—In your answer to question 15, you have given the freight on fabricated steel parts as £3 a ton. We mentioned that figure to Messrs. Burn and Company and they were inclined to think that it could not be as high as that. I had better explain to you the way they put it. What they said was that a very large proportion of the hull in a vessel

* Statement V.
† Not received.

would be flat so that there would be no question of payment by measurement. According to them, there was no particular reason why the freight should be higher on fabricated steel than on unfabricated steel.

Mr. MacGibbon.—That is so. There are in a big vessel several fabricated steel plates which take up no more room than an ordinary plate of the same size when not fabricated. Some of them have simply holes punched. If you want evidence as to freight rates I can show you (produced an invoice) that we have been actually charged £3 a ton.

President.—What precisely is the reason for charging such a high rate on those fabricated pieces that you import?

Mr. MacGibbon.—In the case of that particular vessel, being only 115 feet long, there are very few pieces that are straight. Most of the hull plates and frames are shaped. In a vessel of that size there are few straight pieces at all. Nevertheless, that is an over-all rate, that is the charge for fabricated steel. It is probably a litte higher than would be justified in the case of a vessel like a flat where the plates are fairly straight—at least a considerable proportion of them. The shipping companies probably strike an average between the highly shaped pieces and the moderately flat ones.

President.—Is that rate higher than it otherwise would be because the material is galvanized?

Mr. MacGibbon.—Yes.

President.—Do they charge something extra for that?

Mr. MacGibbon.—Yes. I think I have some freight rates here.

President.—If you could give us for one or two of the larger steamers it would be useful.

Mr. MacGibbon.—I am afraid I cannot give you that.

President.—You have not imported within the last two years anything bigger than the creek steamer.

Mr. MacGibbon.—No, but three years ago we were paying 60 shillings on a vessel of 180 feet long. The present rates for ¼″ unfabricated galvanized and black plates are £1-12-6 and £1-5-0, a difference of more than 25 per cent. extra on account of plates being galvanized.

Mr. Ginwala.—Is it because they have to take more care of them or what?

Mr. MacGibbon.—Freight rates usually vary according to the value of the substance carried. If there are any claims, the carriers will have to pay more. Also bulky articles pay more.

President.—It is not the case that those parts which you import are joined together in some ways to make them bulky.

Mr. MacGibbon.—They are all entirely separate, except that some frames have small knee brackets attached and a certain number have the floor plates attached. These, however, do not render the pieces appreciably more bulky than if they were separate.

President.—The actual freight that you have been charged is as good evidence as one can get.

Mr. Ginwala.—You must have got the freight on unfabricated steel.

Mr. MacGibbon.—25 shillings for ordinary black plates ¼″ thick and 32/6 for ordinary galvanized.

President.—You do not import fabricated steel parts, for other types of engineering work, I suppose?

Mr. MacGibbon.—We don't import fabricated steel parts for other work.

President.—The point about the freight rates is that they vary. It is really our endeavour to see just precisely what the advantage to the Indian shipbuilder is. As compared with other kinds of engineering work, it appears that the Indian firm is more favourably situated and that competition

from abroad is not so keen. That was Messrs. Burn and Company's statement in the first enquiry. We are trying to ascertain wherein the advantage lies and apparently it is in the higher freight on fabricated materials.

Mr. MacGibbon.—I have one or two things to say on the subject of where the advantage lies.

President.—We will be grateful to you for any information you can give us.

Mr. MacGibbon.—I have just jotted down some points which I shall read with your permission. "We may mention one or two factors which tend to afford protection to local manufacture. As already indicated to you, when a firm like ourselves order a vessel from home, we receive an invoice, not in terms of so much fabricated steel, but which represents the total inclusive cost of the whole hull. If, however, we were to take each piece of steel separately, their actual value as such would not total up to anything like the amount of the invoice, the difference being constructors' charges for designing, for superintendence for erection and dismantling and for all overhead charges whatever, including of course, profit. Certain of these charges are very much higher in the case of ships than on other kinds of structural work, yet duty is paid on all. Our contention is that, even if 25 per cent. is a fair duty on fabricated steel, when the fabrication represents little more than half the cost of the material, it is not a fair duty where the fabrication cost represents several times the cost of the material (as when we pay Rs. 720 per ton). Since the labour does not require the same extent of protection as the steel, then the higher the percentage of labour in any particular type of work, the lower the percentage of duty required."

"And again, in connection with the additional erection and dismantling necessary in an imported steamer, it is to be noted that it is not possible to fit only certain sections together at the preliminary erection; the whole vessel has to be completed right to the roof of the upper deck and this constitutes a very considerable advantage to the Indian constructor. Not only do erection costs enter twice into the price, but the charge for the berth on which the boat is built and for all building accessories, loss of service bolts and hooks come in twice also."

President.—That was one of the points we have had in view all along. We shall be glad to have any sort of estimates of what it amounts to.

Mr. MacGibbon.—Another point I have noted here is that in the case of vessels such as can be built out here—launches, tugs, etc.—where there is not a great sum of money involved, the local purchasers prefer to have them built on the spot if they can; in fact they probably even go the length of paying a little more in order to have them built on the spot. There is a certain advantage in having the work done under their eye. Home firms do not always understand exactly what local conditions are like. The people out here know how to build a vessel which will be suitable to climatic conditions, both as regards heat and weather. In that respect, therefore, there is another small item of protection afforded. As a matter of fact, some of the vessels that have come out from home from different people have had to undergo considerable alterations after arrival just because they were not exactly as they should be for the country for which they were built. In some vessels that came out in 1912, the accommodaiton provided for Europeans was entirely unsuitable and a considerable sum had to be spent in putting them right. That is just an instance of what might happen. We know from personal experience that a firm ordering a small launch for harbour work would give us the preference definitely, unless there was a large difference in price, in order that their engineers and others interested in the boat might go to our dockyard and see how things were getting on.

President.—In addition to the freight you have mentioned, there are three other charges, one is for designing the vessel, the second is the cost of erection and dismantling and the third is the advantage of local construction where the purchaser can see that the vessel is made according to his own requirements. Which of these you consider to be the most important?

Mr. MacGibbon.—I think, so far as money is concerned, the point about erection and dismantling is the most important. We hold also that the very high degree of fabrication necessary constitutes a degree of natural protection. I don't think it has been proved that fabrication costs are very much higher than we have given.

President.—But there is always the difficulty of finding out what the fabrication costs are.

Mr. MacGibbon.—May I refer to the statement at page 40 of the Tariff Board's Supplementary Report on the Steel Industry which has a certain bearing on the point—"In the Board's Report on the Grant of Protection to the Steel Industry, the estimated average price at which imported fabricated steel was likely to be landed in India free of duty was Rs. 250 a ton. The fair selling price of steel fabricated in India was calculated as follows:—

	Rs.
Cost of the unfabricated steel ($1\frac{1}{10}$ tons) without duty .	160
Add duty at Rs. 30 a ton	33
Total cost of unfabricated steel	193
Cost of fabrication	117
Total cost of fabricated steel	310

I notice that in the above estimate the cost of fabrication is put down at Rs. 117 whereas further on in the paragraph it is stated that the cost of European fabrication is Rs. 80 a ton.

President.—Rs. 90 was the original, exchange modified it to Rs. 80.

Mr. MacGibbon.—The point is that this estimate of Rs. 80 is arrived at arithmetically, not from actual quotation. It is arrived at by deducting one figure from another. The difference between Rs. 80 and Rs. 117 is about 45 per cent. That is a very large difference and it seems to me that it requires a little examination. I don't think it has ever been proved that that is the actual position.

President.—It is pure inference.

Mr. Ginwala.—It is possible that a certain amount of additional fabrication may have to be done on the European fabricated material that comes out. Probably no allowance has been made for that. In India the fabrication is more or less complete.

Mr. MacGibbon.—Our experience is, so far as small vessels are concerned, that the difference in fabrication cannot be anything like so high otherwise we could not get orders for them at all. We supply boats to the Port Trust and others in Rangoon.

President.—The point is that you are thinking chiefly of shipbuilding. We never made any statements about the cost of fabrication in shipbuilding.

Mr. MacGibbon.—You are nevertheless applying the cost of fabrication of other steel to the question of the duty necessary on fabricated steel for shipbuilding.

President.—No, we never did. Our idea originally was that for some reason the cost of the British manufacturer was higher in the case of vessels than in the case of other articles.

Mr. MacGibbon.—That was not however given effect to.

President.—The Central Board of Revenue are merely interpreting the law as they find it. They are merely concerned with what the wording in the Act really means.

Mr. MacGibbon.—What we want is that the Board should emphasize the original recommendations. We quite recognize that the original Report was in favour of leaving the duty as it was at the time and we are naturally anxious of course that it should be put into the schedule in such terms.

President.—I think we have diverged a little from the point we were on. What we were really getting at is the suggestion that in shipbuilding there is no great difference between the European and the Indian costs of fabrication, and in support of that you suggest that even in the case of other structural work it is not based on actual cost of European manufacture; it is purely an inference. The assumption is that the manufacturer in India and the manufacturer in England get their steel at the same price. If you know the price per ton of fabricated steel in each case, you can find out what each manufacturer thinks he can charge.

Mr. MacGibbon.—The duty on ordinary fabricated steel is calculated on the figures which are worked out in this paragraph I have just read out, and as we are being charged on our ship's fabricated steel on that basis—

President.—That is the basis on which you are charged 25 per cent., I quite agree.

Mr. MacGibbon.—We consider that if the above figures of Rs. 117 and Rs. 80 are correct, then the difference between Indian and European fabrication for ships cannot be so large as in the case of ordinary constructional steel, and therefore the shipbuilding side should be treated as a separate thing altogether.

President.—That is exactly what our questions are directed to. We want to ascertain whether there is any difference.

Mr. MacGibbon.—We think that in view of the very great amount of fabrication which exists in the steel in the ships, it amounts to so much as to justify the inclusion of these under a separate section altogether from ordinary fabricated steel. The percentage of our fabrication is very much higher than in the case of bridgework, which I take it was the basis of the calculation quoted above. These angles of ours are fabricated every inch or two of their length and everyone of the angles in these vessels are shaped. Take girder work. You may get one very large piece which is only fabricated at the extreme ends, whereas in our case it is never so, and we think that justifies the inclusion of vessels under a separate category altogether.

President.—That brings me on to question 13 of the questionnaire to the Engineering firms. The importance of that question is just this, what percentage of the c.i.f. price of fabricated steel would countervail the duty that the Indian manufacturer has to pay on his material. Of course, a great deal depends upon that. Taking your own figure which works out to about Rs. 790 a ton for a creek steamer, if it is mostly plates and angles, the duty is Rs. 30 a ton, but taking another Rs. 100 off from your price for the cost of galvanizing it comes down to Rs. 690, a duty of 5 per cent. would countervail the duty on the unfabricated material. It is only Rs. 33 per ton on the unfabricated material. That was the object of that question. Of course, unless we can get a fairly accurate figure for the c.i.f. price of the fabricated material we may go astray altogether. But even on Messrs. Burn and Company's latest figures, the incidence of the cost on fabricated material in a ship is a good deal higher than in the case of bridgework. Is it part of your contention that the cost of fabrication in ships is very substantially higher than the cost of fabrication in things like bridgework?

Mr. MacGibbon.—Yes, very much so and you have not made allowance for the cost of double erection.

President.—I quite understand that. If I could get a fairly accurate figure for the cost of double erection and dismantling, that would be very useful indeed. This is one of the things we are most anxious to get.

* Statement V.

Mr. MacGibbon.—Unfortunately, the home figures I have here are total manufacturers' figures and are not detailed and I have no idea what they might be charging for erection and dismantling.

President.—I don't know whether the work you do in your own yard would give you any sort of idea.

Mr. MacGibbon.—I think we could give you an indication at least.*

President.—In answer to question 5 of the questionnaire issued to Engineering firms, you say "Corrugated iron, which is not included above, is a considerable item in some vessels." That would be for flats, would it not?

Mr. MacGibbon.—Yes.

President.—Taking your 225 feet flat, can you give us the quantity of corrugated sheet you used for that?

Mr. MacGibbon.—We will send you the exact figure.*

President.—Can you give us any further particulars about the case in which you obtained an outside order against foreign competition at Rangoon? What size of vessel was it?

Mr. MacGibbon.—It was a 75 feet launch and we know these people called for tenders from several firms at home—more firms at home than in India, I should think—and we got the order. As we mentioned in our reply, we afterwards heard that the purchasers had in their minds the wrong meaning of the words "vessels in sections" in the Tariff schedule, and had been estimating that they could import on the 10 per cent. basis.

Mr. Ginwala.—Your contention is that, so far as your ships are concerned, we must revert to the old 10 per cent. *ad valorem* basis.

Mr. MacGibbon.—That is what we want.

Mr. Ginwala.—When you build your own ships you use imported materials?

Mr. MacGibbon.—Yes, we cannot use any other, because of the freight from India.

Mr. Ginwala.—And you pay the ordinary tariff rates, that is to say, Rs. 30 a ton for angles and Rs. 40 for bars and so on?

Mr. MacGibbon.—Yes.

Mr. Ginwala.—Take a ship like the one you are importing. You have this figure of £3,950 *plus* £200 for freight, that is a total of £4,150. In that there are 70 tons of steel?

Mr. MacGibbon.—Yes, approximately.

Mr. Ginwala.—If we get back to this 10 per cent. *ad valorem*, on this 70 tons of unfabricated steel that is there—say 10 per cent. more allowing for the wastage—you escape the ordinary duties that you would otherwise pay. You would have to pay the duty on the unfabricated steel in any case.

Mr. MacGibbon.—Yes.

Mr. Ginwala.—So that the result is this. If we accept your proposal to reduce the *ad valorem* duty to 10 per cent., would you object to a duty being imposed at the present rate on the unfabricated metal that is used in it, that is to say, on 70 tons?

Mr. MacGibbon.—I am not clear as to that. Do you mean that it might be arranged that only the fabricated steel in a vessel might come in at 10 per cent. and all the other items at the present duty?

Mr. Ginwala.—No. Supposing you were fabricating 70 tons of steel here, in any case you will have to pay on this Rs. 30 a ton. Is not that so?

Mr. MacGibbon.—That is right.

Mr. Ginwala.—Why should you want to escape from that if you import it?

Mr. MacGibbon.—You mean to bring it into line with the ordinary unfabricated steel, we should at least pay as much as we would on unfabricated steel?

* Statement V.

Mr. Ginwala.—To put you in line with the people manufacturing ships in this country.

President.—The suggestion is, is that the minimum?

Mr. MacGibbon.—The minimum payable by us to be the present ordinary rate on unfabricated steel?

President.—As a matter of fact, if the c.i.f. price of the imported fabricated stuff is not less than Rs. 330 a ton, it is all right, because 10 per cent. of that is Rs. 33, *i.e.*, on $1\frac{1}{10}$ tons of unfabricated material.

Mr. MacGibbon.—We never could import it less than that. I think the figures you have go to prove that.

President.—Your figures and the latest figures that Messrs. Burn and Co. have given do establish that.

Mr. Ginwala.—The idea is that the domestic manufacturer should not be placed at a disadvantage compared to you. The way to do it would be, supposing you were left as you were, with the 10 per cent. duty *ad valorem*, you must be made to pay an additional duty in order to put the domestic manufacturer on the same level as yourself. His cost of raw materials would go up by Rs. 30 a ton. Do you agree to that?

Mr. MacGibbon.—That is right. It is a point that won't enter into the question, will it, so far as we are concerned?

President.—I am not quite sure I got the point.

Mr. MacGibbon.—Do you mean that we should be made to pay not less than Rs. 33 a ton?

Mr. Ginwala.—You should not get your unfabricated steel at a smaller rate than the domestic manufacturer.

Mr. MacGibbon.—Which is Rs. 33; that is what it amounts to.

Mr. Ginwala.—Yes.

Mr. MacGibbon.—As I say, the point would never arise. So far as we can make out from the figures available, the fabricated steel parts of vessels could not be imported into Burma at less than Rs. 330.

Mr. Ginwala.—I don't know whether I have made my point clear to you.

President.—Messrs. Burn and Co. say the approximate rate per ton for finished steel work of a typical I. G. flat whilst lying on blocks is Rs. 325. That is very close to Rs. 330. If any safeguard is needed on that, it would not be impossible to provide in the schedule, 10 per cent. *ad valorem* subject to a minimum valuation of Rs. 330.

Mr. MacGibbon.—It would not affect us as our steel is always more than the minimum.

Mr. Ginwala.—The point is that 10 per cent. *ad valorem* you were already paying. That included the duty on the unfabricated as well as the fabricated cost.

Mr. MacGibbon.—Yes.

Mr. Ginwala.—Now so far as the domestic manufacturer is concerned, his material has gone up.

Mr. MacGibbon.—Yes.

Mr. Ginwala.—Why should you not pay the whole of that in addition to the tariff valuation, that is to say, why should you not be made to pay the 10 per cent. duty *plus* this specific duty of Rs. 15 a ton?

Mr. MacGibbon.—Rs. 15 a ton on weight, *plus* 10 per cent. *ad valorem*?

President.—The suggestion is simply this. The duty on the unfabricated material has gone up which has raised the cost of the Indian builder by Rs. 16 or Rs. 17 per ton of fabricated material. The suggestion is that Rs. 16 or Rs. 17 per ton should be added to the *ad valorem* 10 per cent. duty which would make very little difference to you.

Mr. MacGibbon.—I am not going to admit the justice of that. I am here to stand out for the reversion of the old rate, on grounds already explained.

Mr. Ginwala.—You have got to help us also to determine what would be equitable between you and the domestic manufacturer. If it was a case of manufacturing your own boats, that is quite a different proposition, but we are now considering the equity of the case as between the foreign producer and the domestic manufacturer.

Mr. MacGibbon.—Your suggestion is that there might be an extra Rs. 15 per ton.

Mr. Ginwala.—Or whatever figure may be necessary in order at least to put the domestic manufacturer on the same footing as the foreign manufacturer.

Mr. MacGibbon.—That comes to Rs. 87, on a basis of Rs. 720 per ton.

President.—Then the Indian producer would be no worse off than you were.

Mr. MacGibbon.—All I can say about that is it is certainly to our advantage compared with our present position.

Mr. Ginwala.—I am asking you to put yourself in our position and just see whether it would be fair.

Mr. MacGibbon.—It seems to me to be fair.

Mr. Ginwala.—Then there is the next point. He should be left where he was, so far as unfabricated part of the work goes.

Mr. MacGibbon.—Yes.

Mr. Ginwala.—Now if we are to make that recommendation, we must also see that in the fabricated part of the work the Indian manufacturer can compete on even terms with the foreign manufacturer.

Mr. MacGibbon.—Yes, for the type of vessel which is built here.

Mr. Ginwala.—On what evidence can we say that?

Mr. MacGibbon.—I produced evidence in Question 13 of the questionnaire for the engineering firms. Besides we build a very large number of vessels in Rangoon. We would not have built them unless it was profitable for us to do so.

Mr. Ginwala.—In your case there are other questions besides that of the cost, such as convenience, keeping your works fully employed, personal supervision and various other things for which you might be prepared to pay a little more. You have got a big dockyard and you have got to keep it going.

Mr. MacGibbon.—We have equipped the dock to do that type of work. It was cheaper to build some types in Rangoon, otherwise we shouldn't have our works there.

Mr. Ginwala.—Even if it costs you a little more, it will pay you to spend that rather than shut down your works for the time being. That is one of the factors.

Mr. MacGibbon.—That applies to every business.

President.—That would not apply to a purchaser who has not got a dockyard.

Mr. Ginwala.—In his case it would only be a question of cost. In your case it is not necessarily so. Have we not got to assume therefore that the Indian manufacturer can compete against the foreign manufacturer without any assistance?

Mr. MacGibbon.—Yes, we say so definitely. After all, your proposition about keeping our dockyard running and fully employed, applies to Messrs. Burn and Co. and others just the same, and thereby affects the purchaser. There are plenty of people all over the world who are selling things just about cost price to keep their works going.

President.—Any number of them.

Mr. Ginwala.—In the case of girder work, we are not able to assume that the Indian manufacturer can hold his own against the foreign manufacturer.

Mr. MacGibbon.—No. Can we not take it, however, from what Mr. Cochran said in 1923 that he more or less agrees with our contention. The position has admittedly altered to a certain extent since then. He was

quite clear on the point that the import of flats and barges to India had ceased and had not existed for some years. There was a margin in favour of India. To what extent there was a margin, we can't say. He couldn't say anyhow what the margin was. There might have been a margin of 25 per cent. The assumption is when there were no flats coming in at all, the margin was very large and it may still be large enough to cover any possibility of a boat coming in on a 10 per cent. duty.

Mr. Ginwala.—I don't think we can go much further than that. I put to you a question from the general point of view. Now you yourself have said that up to now you have not attempted to build anything bigger than 100′.

Mr. MacGibbon.—Apart from flats, yes.

Mr. Ginwala.—We have evidence that bigger craft can be built in this country, but the Irrawaddy Flotilla Company won't themselves build bigger craft and they don't consider it worth while getting them built here by others.

Mr. MacGibbon.—Yes. We shall begin to manufacture the bigger craft as soon as it begins to pay us to do so. That is our policy. We find the margin has been reached just now about a hundred feet.

Mr. Ginwala.—If you think that these things can be built here in this country and that they ought to be built in the national interests—but you won't start building until you find it would begin to pay—what are we to do?

Mr. MacGibbon.—The suggestion is that you might propose taxing us to such an extent until it would pay us to manufacture the bigger craft here?

Mr. Ginwala.—To put you on your mettle and make you do things.

Mr. MacGibbon.—Look at our position. Indian steel is sold here at a certain figure which is based on the imported price of steel from Europe. We pay Rs. 18 freight to get it from here to Rangoon.

Mr. Ginwala.—I am not suggesting to you that you should use Indian steel. You could import the steel. Taking the shipbuilding industry by itself, don't you think that it is an industry which ought to be developed in the country?

Mr. MacGibbon.—I thought the whole object of this enquiry was the protection of the steel industry of India. If you admit that Rangoon must import her steel in any case, why begin protecting the labour in the shipbuilding industry in India, which is all you would be doing.

Mr. Ginwala.—It is not a question of protecting the shipbuilding industry in that sense. It is a question of establishing a shipbuilding industry in the country by means of protection. How is that going to be done? So far as you are concerned, you cannot get Indian steel, that is admitted at present.

Mr. MacGibbon.—Yes.

Mr. Ginwala.—You are the only big company that can go in for shipbuilding on a fairly big scale, so far as river craft is concerned in Burma. Here are these companies which can build the kind of ships that you require. Now if that industry is to be developed in the country . . . . .

Mr. MacGibbon.—They can build them and export. It comes to a question of export, which adds to expense.

Mr. Ginwala.—Don't imagine that I am discussing anything that we have decided to do because at this stage nothing can be decided. We are simply discussing it from all points of view. Burma is anyhow part of India just now and look at it from the Indian point of view which includes the Burma point of view. If it was thought advisable that shipbuilding ought to be encouraged in the country, the question that arose was: what steps ought the country to take?

Mr. MacGibbon.—I do not know but I think in the meantime at any rate we should continue to buy our boats at home. The point that I have mentioned about local supervision comes in here. We have our works in Rangoon and we have our head office in Glasgow. We can supervise in Rangoon and we can supervise the stuff at home. We can not keep a man to supervise construction here. That is one point only, more expense.

Mr. Ginwala.—But then you can build yourselves.

Mr. MacGibbon.—In that case we cannot get the Indian steel.

President.—The suggestion is that you may use imported steel.

Mr. MacGibbon.—Then it is no longer a question of protecting the Indian steel industry. It becomes a question of protecting an entirely different industry altogether.

Mr. Ginwala.—It is before us just now.

Mr. MacGibbon.—You are asking me questions on the basis of a different subject altogether.

President.—The whole question of ships arose as part of the steel enquiry.

Mr. MacGibbon.—The duty on fabricated steel was first of all imposed in order to safeguard the industry which was supposed to use Indian steel. If you depart from that, admit that we in Burma cannot get Indian steel and then put a duty on fabricated imported steel, you are simply protecting the shipbuilding industry. It has nothing to do with Indian steel. Am I not right?

President.—I don't in any way say that it will be outside the terms of reference to consider the shipbuilding industry on its own merits, but I do say that the whole question arose out of the general steel reference.

Mr. Ginwala.—That is undoubtedly so as to the origin. You have put in an application for the reduction of the duty. Messrs. Burn and Company have applied that the duty should be kept at the present level on the ground that this industry needs that duty. We have got to go into that question. I am trying simply to get at real facts as to what the position is. Their case is that it originally was intended that this 25 per cent. should be applied to ships.

Mr. MacGibbon.—They have proved nothing. They have not yet given you any figures which show that there is the slightest danger of vessels coming in from home. Since the duty came on, there has been no importation of any ships.

Mr. Ginwala.—They say that ships have not been imported because of the application of the duty in that form. That is what they say.

President.—They say so but they have not given any evidence to establish that.

Mr. MacGibbon.—Under either set of circumstances, both before and after the institution of the duty, none came in.

Mr. Ginwala.—Certinly ships have been imported. It is not quite clear who imported them and under what circumstances.

President.—Unquestionably there have been some imports.

Mr. Ginwala.—They may be your own imports.

Mr. MacGibbon.—If there were any imports, they might be ours, or they might be special vessels. Do Messrs. Burn and Company profess to build dredgers?

President.—I don't think so.

Mr. Ginwala.—They say that ships have been imported. They have given two instances which they know, one at Karachi and the other at Calcutta.

Mr. MacGibbon.—Karachi is a different place, which is somewhat like Burma. It has few constructional facilities for big craft and the sea journey is very long from Calcutta. So Karachi may import, but then where there are any constructional facilities as there are in Rangoon and Calcutta, the danger of import is very small indeed.

Mr. Ginwala.—Your contention is that as Indian steel cannot be used in Burma, there is no special reason why shipbuilding should be encouraged in Burma.

Mr. MacGibbon.—We are the only people who do construction to any great extent over there. We represent the industry. We certainly represent the owner importer entirely. It is part of our contention that although the

Legislature refused special consideration to Burma when the Act came up on general grounds, this particular industry which we are discussing has headquarters in Burma where the tariff is only operative in one way, and that in the wrong way so far as we are concerned, and that it is entitled to special consideration as a particular industry situated in a particular part of the Indian Empire, where the duty is not going to do anybody any good and where it can only do harm.

Dr. Matthai.—With regard to this question of advantage which the Indian shipbuilder has as compared with other engineering firms, I want to ask you whether one of the reasons is not this that in regard to ordinary structural work, it is generally made to certain standard sizes, that is to say, there is more standardisation in constructional work than in shipbuilding.

Mr. MacGibbon.—That is so.

Dr. Matthai.—If that is so, the firms in the United Kingdom who produce on a large scale, would have an advantage with regard to bridgework or things of that sort which they don't have with regard to shipbuilding. In the case of shipbuilding, standardisation is not possible to the same extent. I was wondering whether you would consider that as one reason for the shipbuilding industry being in an advantage as compared with other engineering works.

Mr. MacGibbon.—Mass production of course is always in favour of the home producer. In the case of our launches, mass production is entirely out of the question. There are no two frames alike in launches, and no two firms ordering the same kind of vessels.

Dr. Matthai.—Speaking of shipbuilding as a whole, don't you say that there is less room for mass production?

Mr. MacGibbon.—Certainly. If we order a steamer from people at home, it is very unlikely that anybody else within a period of ten years has ordered a similar vessel.

Dr. Matthai.—There is another point with regard to the same question. The market for shipbuilding in India is much more limited than the market for ordinary structural work.

Mr. MacGibbon.—Yes.

Dr. Matthai.—Therefore, it is not worth while for big firms in the United Kingdom to form connections with the Indian market by accepting small orders. In regard to bridge work, they might be prepared to accept relatively small orders.

Mr. MacGibbon.—That is one of the points I had noted down. A certain amount of protection is afforded by the fact that competition for the type of vessel which we use is small. There are not very many firms who go in for that type of work at all at home and competition is absent to a certain extent. But competition is extremely high for other branches of structural work.

President.—And for sea going ships also?

Mr. MacGibbon.—There is not so much just now.

President.—They are very short of shipbuilding orders on the Clyde.

Mr. MacGibbon.—They are not doing very much there. I don't think that you will find very many firms who build shallow craft.

Dr. Matthai.—There is a point which you make about the cost of labour which I don't understand. In your answer to Question 7 of the questionnaire for the engineering firms, you say "Nor is allowance made for the high rate of freight charged on imported fabricated steel, nor for the comparative cheapness of labour in Calcutta as compared with the United Kingdom." I do not know what your aim is in saying that.

Mr. MacGibbon.—The scale of wages is lower in India.

Dr. Matthai.—Money wages are lower but the cost of labour on the whole is not lower in India than at home, if you compare the money wages with the outturn and other charges of supervision.

President.—Low wages do not mean cheap labour.

Mr. MacGibbon.—You mean it takes two men here to do one man's job?

Dr. Matthai.—Yes, you have not gone on any real evidence. You are simply thinking of the money wages, aren't you?

Mr. MacGibbon.—Of course it would be more correct to say that the scale of individual wages is low in India.

Dr. Matthai.—We are not concerned so much with the scale of wages as with the cost of output.

Then as regards rates and fares, you say that supposing the duty is going to affect your costs, it would not be possible for you to pass the burden on to the public because your rates are high enough, so that you cannot raise them any higher. Has there been any very considerable increase in rates and fares during the past two years?

Mr. MacGibbon.—No.

President.—How do they compare with pre-war rates?

Mr. MacGibbon.—About 20 per cent. more.

President.—Does that apply to both goods as well as passenger traffic?

Mr. MacGibbon.—To both. These increases were of course made quite irrespective of shipbuilding costs. They were due to the fact that we had to raise our crew's wages by 50 per cent. and to the fact that prices of stores had gone up, after the war.

Dr. Matthai.—From your experience of the actual result of this increase in rates and fares since pre-war, do you think that it cannot be increased any further without injury to trade.

Mr. MacGibbon.—To a certain extent, it is always difficult to raise rates and fares. Popular opinion is against it and we do not desire to raise them at all unless it is absolutely necessary. We have had some very good excuses recently but we did not increase the rates. We very much deprecate the necessity to do it.

Dr. Matthai.—Supposing, for example, this duty is maintained at 25 per cent., it is quite clear from your statement, as far as the cost of transport to the public is concerned, it is not going to be affected, if it is already as high as possible.

Mr. MacGibbon.—We are not making any promises of that sort.

Dr. Matthai.—That is what necessarily follows from your statement. I am referring to your letter to the Central Board in which you first protested against this thing. Please look at the last sentence on the 1st page. "The rates and fares are already high and the increased duty cannot be recovered without injury to trade."

Mr. MacGibbon.—That means of course that if we put up the fares it is going to be detrimental to the trade of the country. It does not mean that we cannot put the fares up.

Dr. Matthai.—As far as yourselves are concerned, it cannot increase your costs except to the extent that there are renewals to your fleet, is not that so?

Mr. MacGibbon.—Yes. In that connection, regarding the passing of the burden on to the public, I would just like to say this. As you are aware, the question of communications in Burma has recently been seriously engaging the attention of Government and they have realised that the lack of good communications in that province has been operative in retarding its development to a considerable extent. They have now instituted large projects for roads and railways with the object of putting this right. We used to build a launch of the type I have mentioned (*i.e.*, 115′ long) for £8,000. It now costs £15,000. There are many runs in Burma which we are plying on just now which only pay, because we are using pre-war boats with small capital costs, and small overhead charges. These boats are getting old and they are reaching their limit. When it comes to the question of replacing them, if we have to spend £15,000, what is going to happen to these lines? They will be dropped. They are in the poorer districts of the province, where we cannot

raise fares and recoup ourselves. The only result will be that certain lines of communication in Burma which can only be reached by river, are going to be abandoned. That is contrary to Government policy at the present moment and we are in a considerable sense assisting Government in the development of the province by plying boats. We are a public utility company and deserve a certain amount of consideration in that respect too. It is quite clear that a boat which costs twice as much cannot be run with rates and fares remaining at their present level. There are several runs like that round about the Delta which are only just maintainable by these old boats and I would ask you to consider that point too. We are serving the country to a considerable extent. The Delta in Burma does not permit of railways.

President.—That is a perfectly fair point and one of the aspects of the case, which we have got to consider.

Witness No. 2.

THE INDIA GENERAL NAVIGATION AND RAILWAY COMPANY, LIMITED.

A.—WRITTEN.

Statement I.—Representation, dated 29th April 1925.

With reference to Resolution No. 221-T.—Department of Commerce—Tariffs—dated Delhi, 28th March 1925—which appeared in the *Gazette of India* of that date, we have the honour to support the representation made by the Irrawaddy Flotilla Company, Limited, Rangoon, that the general conclusion of the Tariff Board should be held to cover the imports of shaped and fabricated parts for Inland vessels built in Great Britain, dismantled and shipped out to this country for re-erection here.

If the Inland Steamer Services are to be maintained up to the standard of efficiency hitherto obtaining, it will be necessary for many years to come to import certain classes of River Craft and in view of the competition which inland shipping generally has to contend with in the shape of railways and native craft, the high rate of duty now imposed is adding a burden which is likely to affect adversely the development of water communications, which is a matter of the greatest importance so far as this side of India particularly is concerned.

We trust therefore that this question will receive sympathetic consideration and that it will be found possible to make some considerable reduction in the existing duty of 25 per cent.

Statement II.—Letter dated the 4th November 1925, from the India General Navigation and Railway Company, Limited, forwarding replies to questionnaire.

We have the honour to acknowledge receipt of your letter No. 520, dated the 17th September 1925, enclosing copy of Questionnaire from the Tariff Board in connection with representations made by us for a reduction of the duty on fabricated materials imported for the construction of Inland vessels, and for a definition of the term "Inland vessels in Sections" in conformity with the generally accepted, and obviously original intention of the Tariff Board.

We have pleasure in enclosing herewith, as requested, six copies of our replies to the questionnaire, and consider that in view of the general opinion that the intentions of the Board have been erroneously interpreted by the term "Inland vessels in section" further comment or arguments on our part would appear to be superfluous.

It might be as well to emphasise the fact that for several years now our building programme has been curtailed owing to excessive cost of new vessels and if reduced prices due to a return to normal conditions of the steel and ship-building industries are to be counteracted by excessive tariff duties it can only tend to retard expansion of the transport facilities of the country.

Our replies to the questionnaire to Engineering Firms will follow.

Replies to Questionnaire.

1. *A* Passenger and Cargo Steamers up to 305×71′ 6″×10′ 6″.

   B Towing Steamers up to 236×60×10.

   C Creek Steamers up to 105×24′ 6″×7′ 6″.

D Steam Launches up to 135×24′ 6″×8′ 0″.
E Small Motor Launches.
F Flats from 200 tons to 1,000 tons.
G Barges from 50 tons to 100 tons.

2. (*a*) 1920 *A*, *B*, *E*, *G* Classes *Nil*.
,, *C* Class 2 Creeks 105′×24′ 6″×7′ 6″.
,, *D* Class 2 Launches 94′×15′×8′ 9″.
,, *F* Class 10 Flats 240′×27′×9′ 6″.
1921, 1922, 1923, 1924 } *Nil* in all Classes.

(*b*) 1920 B Class 2 Towing Steamers 230′×30′×9′ 3″.
1921, 1922, 1923, 1924 } *Nil* in all Classes.

3. There are many other factors besides price to be taken into account. There are for example:—

Designs.
Supply of materials.
Quality of material and workmanship.
Time of delivery.
Capacity of the Dockyard to deal with the work.

Also as most of our vessels are repeats of types already in use, the previous Builders are not only familiar with our requirements but also possess the patterns, jigs and dies for the various parts.

4. All Towing, Cargo and Passenger Steamers over 100 feet in length.

5. No.

6. By the Company themselves.

7. No.

8. All wood-work for decks, cabins, cabin fittings, furniture, bridge and steering houses, hold and ceilings. Also cast iron deck fittings, bollards, fairheads, etc.

9. Entirely fabricated with the exception of a small quantity of material to complete the work which is fabricated here.

10. It is impossible to give the present total cost of each of the classes mentioned in *Answer 1* as owing to the high prices ruling construction has been reduced to a minimum and in most classes no new vessels have been ordered of recent years, as shewn in Answer to Question *2*.

11.

	B class built in Europe.	C class built in India.
a	25%	14½%
b	48%	54½%
c	1%	¾%
d	21%	11¼%
e	5%	19%

12. Approximately 3·5 per cent.

13. We have not imported any fabricated steel parts since the duty was increased and are therefore not in a position to say what the present cost is.

14. Yes.

15. Not having imported any fabricated materials of recent years we are not in a position to say, and as fabricated materials and machinery are often included in the same shipping documents it would be difficult to apportion them to particular details.

16. No.

17. Some 10 per cent. other articles 15 per cent.

18. In the first instance and with immediate effect the term "Vessels in Sections" should be given, the only practical definition, and that which it was originally intended to convey, and should include all plates, angles, tees, beams, etc., forming part of a vessel imported for erection or re-erection in India.

19. We have no data in this connection.

Statement III.—Letter dated the 21st January 1926, from the India General Navigation and Railway Company, Limited, Calcutta.

In continuation of our letter No. G.-442, dated the 18th instant, we have the honour to give the following information as desired:—

1. The following vessels were added to our fleet during the years 1900 to 1914:—

—	No. built.	In India.	In England.
Steamers and Launches	45	23	22
Flats and Barges	166	144	22
TOTAL	211	167	44

2. The depreciation and interest on the capital cost of a steamer is approximately equivalent to 25 per cent. of the total running cost of the vessel.

Regarding the cost of erecting and dismantling a vessel in our builders' yard at home, we regret that we are not in a position to give this information

INDIA GENERAL NAVIGATION AND RAILWAY COMPANY, LIMITED.

B.—ORAL.

Evidence of Messrs. P. PARROTT and A. HEWISON, recorded at Calcutta, on 7th January 1926.

President.—We are much indebted to you for coming this morning. We quite recognize that you have not got any up-to-date figures.

Mr. Parrott.—That is our trouble.

President.—But still there are certain points we hope you may be able to help us about. It has not been easy to get the kind of information we want in this particular case and we cannot overlook any chance of getting it. Can you tell us what is the total number of vessels you have in your fleet and roughly how it is divided into various classes?

Mr. Parrott.—We have altogether 624 vessels which are divided up into passenger and cargo steamers, towing steamers and so on.

President.—Does that pamphlet contain the number in each case?

Mr. Parrott.—Yes.

President.—If you could give us a copy of that, that would be the simplest way to have the information.

(A copy of the pamphlet handed in.)

One of the points that arises in this enquiry is that the larger boats will have to be imported both by yourselves and the Irrawaddy Flotilla Company.

Mr. Parrott.—Yes.

President.—We would have to find out what proportion of the fleet is made up of these larger vessels. What would be the average life of a vessel?

Mr. Parrott.—It is very difficult to say. We have got craft running as far back as 1864.

President.—What was in my mind was this. In normal circumstances how many new vessels would you probably be building or importing in a year to maintain your fleet at its present size?

Mr. Parrott.—It is very difficult to say. During my connection with the Company extending over 30 years very few vessels have been actually replaced, *i.e.*, thrown out entirely and replaced by a similar type. Our building programme has been one of gradual extension and development, and our Fleet List shows the long life of the vessels. We are now considering the replacement of a certain class which are shown in the list, *viz.*, passenger mail boats 186 feet long built in 1889. We are considering the question of replacing that type, as we have found they are more or less obsolete for present day conditions which require more up-to-date passenger boats—better accommodation, speed and so many other things. We intend to gradually replace 8 of these boats. There are no doubt others which will require improvement and we may have to take another type in hand and gradually replace them. It does not follow that these replaced vessels will be scrapped. As long as their boilers hold out and their hulls are worth repairing there is always work to be found for them.

President.—It is easy to understand, if you have not been replacing at all for the last 30 years, that it is time to think of doing so.

Mr. Parrott.—We re-boiler many of our vessels and keep them efficient by spending a lot of money on repairs. Our steamers come to Calcutta every three years at least and are thoroughly overhauled in our own dockyard, and if the boiler of a particular type of vessel is giving out and it is found that the type has become obsolete and not worth re-boilering, it is only then scrapped and replaced.

President.—You have told us in your answer to question 4 that you import all towing, cargo and passenger steamers over 100 feet in length.

Mr. Parrott.—I am afraid that sentence is rather loosely worded. What we mean is, where new and special types of vessels are concerned, our custom is to have the first one or two such vessels designed and built by our builders at Home and then sent out for erection here.

President.—What is the largest steamer that you would build in this country supposing it was of some standard type?

Mr. Parrott.—We have built steamers of our second largest type which is 249 feet in length.

Mr. Ginwala.—You built that in your own yard?

Mr. Parrott.—Yes, as repeats of vessels originally designed at Home.

Mr. Ginwala.—Is there any physical difficulty in connection with the size of the yard or the depth of the water which would prevent your building larger types?

Mr. Parrott.—No. We can build up to 300 feet. This is the limit of our present accommodation.

President.—That is practically the size of the largest steamer you have?

Mr. Parrott.—305 feet is the present largest steamer. We have two of that type.

President.—Are the vessels that you are going to replace of the largest size?

Mr. Parrott.—They are 186 feet in length.

President.—By what size of vessel would you replace these?

Mr. Parrott.—They may be a little larger; on the other hand we may build boats specially for mail and passenger traffic which may be smaller, but they will be roughly about the same size as the existing boats.

President.—I take it these vessels would be of a new design?

Mr. Parrott.—Yes.

President.—And for that reason the first of them at any rate you would have built at Home?

Mr. Parrott.—Yes.

President.—But after bringing out one or two you would be tempted to build any more you require in India?

Mr. Parrott.—All depends on what our dockyard can do in the way of building and this is limited because so much of our accommodation is occupied in repair work. To get a steamer out from Home and erect it out here means a saving of two months in time against our building the boat here from raw material. That saving in time is a great consideration.

President.—Could you tell us what amount of construction your yard can undertake in addition to the repair work?

Mr. Hewison.—Approximately 5,000 tons in a year. That is the weight of the steel.

President.—Can you give us any idea what would be the tonnage of steel in one of the biggest steamers?

Mr. Hewison.—About 370 tons of steel and 153 tons of machinery.

President.—In which type would that be?

Mr. Parrott.—In one of the 249 feet boats.

President.—What would be the tonnage of that?

Mr. Hewison.—About 800 to 850 gross tons.

President.—What would be the quantity of steel in one of these flats of 200 feet?

Mr. Hewison.—Roughly about 300 tons of steel.

President.—That is not very far off from the quantity in the steamer?

Mr. Hewison.—No.

President.—That means that if you can deal with 5,000 tons of steel you can build a fair number of vessels in a year, because, as far as the actual steel work is concerned, you can deal with about 10 of these larger steamers or flats and I think you would be still within your capacity?

Mr. Hewison.—We could deal with 8 of the largest steamers or 10 flats in the year.

President.—You would build your flats and barges in India entirely?

Mr. Hewison.—They are always built in India now-a-days. A few in the past have been built in England.

President.—Then there is one question that you have raised, namely that you are naturally averse to any increase in the cost of running your steamers, because you have got to compete with country boat traffic, and the railways. Of course the Board recognize that a tax on transportation is not a good tax, and for that reason when dealing with railway wagons and rails they dealt with the matter on other lines so as to avoid increasing the railway costs. But I would like to get an idea, if I can, what in this case this 25 per cent. duty on fabricated steel parts actually means. The Irrawaddy Flotilla Company have given us some figures. In question 12 we asked "By what percentage would the total cost of a vessel of each class be reduced, if the duty on the fabricated steel parts were reduced from 25 per cent. to 10 per cent.?" Your answer is "Approximately 3·5 per cent."

Mr. Parrott.—That is so.

President.—The Irrawaddy Flotilla Company gave 3·9 per cent. They were taking one or two types of steamer as typical and the two figures are pretty close together. As regards the running cost of a vessel the two items that are increased by the protective duties would be interest on the capital invested on the steamer and the depreciation that has got to be written off.

Mr. Parrott.—Yes.

President.—These items would apparently go up by 3½ per cent. in consequence of the increased duties that might be imposed, but what proportion would these items be of the total cost of running a vessel? Have you any idea how the running expenses compare with the overhead charges that has got to be brought in at the end of the year?

Mr. Parrott.—I am afraid I cannot give it to you off-hand.

President.—Would it be possible to give some sort of an approximate figure by looking into your books?

Mr. Parrott.—Yes. I can doubtless give you fairly reliable figures after looking into our books.

President.—After all it is not a very big increase so that if we can get a figure correct to 5 per cent. that is near enough to get the approximate percentage of increase in your total cost.

Mr. Parrott.—We will endeavour to get that for you.* You want the percentage of the increase on the total running cost?

President.—Yes. What we wish to ascertain is, what it would cost you to run a vessel at the end of the year. You have got to take into account the wages and salaries, the coal that you burn and the annual repairs, the share of the head office expenses and, finally, the capital charges connected with the vessel, that is to say interest on the capital invested and the depreciation that has to be writen off annually. These are probably the principal items, and then the percentage that the depreciation and the interest on the capital invested in the vessel bear to the total.

In your answer to question 11 you have given the percentages of the total cost of a vessel accounted for by various items. Your cost of what period were you working on?

Mr. Parrott.—1920 in both cases.

* Statement III, para. 2.

President.—I am not quite sure about the figures for the C class built in India because there you have to start with unfabricated not with fabricated steel parts.

Mr. Parrott.—Yes.

President.—This 14½ per cent. in your answer is the cost of the unfabricated steel?

Mr. Parrott.—Yes. The idea was just to give the proportion of the two classes.

President.—Then the cost of the fabricated comes under the last heading, what we call in our question "erection in India."

Mr. Parrott.—Yes.

President.—The cost of fabrication comes under the last entry "erection in India." We are anxious to get the approximate average cost per ton of fabricated steel parts of the vessel. As you have not actually imported these, there will be difficulty in giving it. But take your pre-war experience. At that time were the fabricated steel parts of vessels more expensive than, let us say, fabricated steel parts in bridge work or something of that kind or were they much about the same?

Mr. Parrott.—I don't think there would be any great difference between the two.

President.—The Irrawaddy Flotilla Company have given us a somewhat startling figure of Rs. 720 to Rs. 840 a ton. They are coming to-morrow and we shall have to ask them what exactly these figures mean. The question was:

> "What is the present average c.i.f. cost (without duty) per ton of the fabricated steel parts of imported vessels which are charged with duty at 25 per cent. *ad valorem*?"

They say:

> "The present average c.i.f. cost of the fabricated steel parts of imported vessels chargeable to duty at 25 per cent. varies according to the size of the vessel concerned but it is roughly between Rs. 720 and Rs. 840 per ton, to which duty has to be added."

We put these figures to Messrs. Burn and Company and they expressed an ardent desire to build vessels for the Irrawaddy Flotilla Company at these prices.

Mr. Parrott.—I can't understand these figures.

President.—In our original Steel enquiry the figure we arrived at was Rs. 250 a ton for fabricated steel. It has subsequently fallen owing to various causes.

Mr. Parrott.—They don't say when that particular stuff was imported.

President.—They have been importing quite a fair number of vessels recently.

Mr. Parrott.—I believe so.

President.—They profess to be giving the present day costs. The reason why we are anxious to get it is that, unless we have got something to compare with the Indian cost, it is almost impossible to say what the real position is between the imported vessel and the Indian vessel. The main question we have to answer is whether protection is required and, if so, how much. Up to date very little information has been given us to answer that question. Messrs. Burn and Company told us that you had ordered three flats from them last year.

Mr. Parrott.—Yes.

President.—You didn't on that occasion call for any tenders. You have already told me you always made them in India.

Mr. Parrott.—It was all a question of time in this particular case. We wanted them for the busy jute season. At a short notice they were able to build and that was how they got the order.

President.—Was it simply a question of time?

Mr. Parrott.—Yes.

President.—In ordinary circumstances you would have built them yourselves?

Mr. Parrott.—Yes, but in this case we could not have built them in the requisite time.

President.—I was in hopes that you might have called for tenders and that you would be able to give us the information.

Mr. Parrott.—No. Unfortunately we cannot give more information as, owing mainly to the financial stringency, we have been unable to build during the last four or five years.

President.—One recognises that. Also you are not able to give the average freight rate on the fabricated steel parts.

Mr. Parrott.—We can only give that by going back probably to 1919 or 1920.

President.—I am afraid the freight rates of 1919 or 1920 would not be of much use to us.

Mr. Parrott.—There has been little or nothing fabricated imported at all since then.

President.—We discussed this question with Messrs. Burn and Company. The Irrawaddy Flotilla Company have given £3 a ton as the freight rate. We put that figure to Messrs. Burn and Company and they said it could not be as high as that. Plates and the hull formed the bulk and they would be practically flat. There was no reason why a higher freight should be charged on them, because they would not occupy more room.

Mr. Hewison.—Only on certain parts they may have to pay more freight. For example the Bow and Stern plates of a vessel may come out bent, also the bilge plates in which case more freight may be charged on such parts.

President.—I take it on the plates that are not bent, the rate is probably the same as the ordinary rate for steel.

Mr. Parrott.—Yes.

President.—As regards the fabricated parts which come out to you from the home builder, do you do the joining up out here or are there any parts coming out joined up there?

Mr. Hewison.—In some cases where angles have to be joined together by bracket, the latter may be rivetted to one angle, otherwise the pieces come out entirely separate. We bring them out and rivet them here.

President.—In question 18 we asked:

> "Have the Company any suggestions to make as to the manner in which the Tariff Schedule should be amended, if it is decided that the duty on the fabricated steel parts of vessels should be reduced?"

What you say is:

> "The term "vessels in sections" should be given only the practical definition."

I am afraid that it is not an admissible solution of the problem, because when the final authority, whatever it is, says what a certain phrase means, you cannot go beyond that. If that meaning is not acceptable, then you must find other words.

Mr. Parrott.—That meaning has not been applied for very many years.

President.—Nobody raised the question whether they were vessels in sections or whether they were fabricated steel, because the duty was the same.

Mr. Parrott.—Quite so.

President.—I do not know whether you have looked at our last Steel Report. What we did there was this. We took all the various fabricated steel entries in the schedule, for instance, iron or steel plates not under ⅛th inch thick including sheets ⅛th inch thick or over—

(*b*) fabricated all qualities, except the component parts of ships and other vessels. Leaving them out under each of these entries then you would have to add another entry "component parts of the ships and vessels so much." I imagine that if the Board do make any proposal of that kind, they would probably take some such shape, but I take it provided the thing is done and effectively you don't attach very great importance to the method that is precisely followed.

Mr. Parrott.—We don't.

President.—Practically would there be any difficulty for the Customs authorities in ascertaining whether the particular plates or particular girders and so on that came out were actually intended for use in the construction of a vessel?

Mr. Parrott.—I don't think so. They are all marked. All parts coming out for re-erection here are marked with the name of the vessel.

President.—Is that invariably the case?

Mr. Parrott.—That is invariably done. It is really required for our own purpose.

President.—Is that a custom to your own firm or is that common to others?

Mr. Hewison.—I think all firms must have it, because they would have a lot of material arriving and they have got to find out which is which.

President.—Otherwise they might get mixed up?

Mr. Parrott.—Yes.

President.—I take it also the Customs authorities will be in a position to insist on the production of the brand of the vessel?

Mr. Parrott.—Yes.

President.—But there is also this point to be considered. It is not only new steel coming out for a new vessel, but also steel coming out for repairs to vessels

Mr. Parrott.—That would come out in packages simply marked with the Company's name. In no case would it bear a vessel's name.

President.—As regards repairs you buy unfabricated steel and fabricate it yourself, in which case that question hardly arises.

Mr. Parrott.—Yes.

President.—What was running in my mind was this. If the cost of fabricated plates was Rs. 200 a ton c.i.f. and if the duty was 10 per cent., then it will be Rs. 20.

Mr. Parrott.—Yes.

President.—If the duty on unfabricated plates is Rs. 30, do you think it is conceivable that it might be worth anybody's while to drill a few holes and bring them out as the component parts of the ship?

Mr. Parrott.—It will be up to the Customs authorities to make sure of the position before passing the stuff.

President.—Let me put it the other way round. Would it be easy for the *bonâ fide* importer of a vessel to satisfy the Customs authorities that the steel is required for that particular purpose?

Mr. Parrott.—We could do that easily as far as our imports are concerned.

President.—You yourselves are not only importers, but builders and there is one aspect of the case in which you might be able to help us. It was clear from Mr. Cochran's evidence in our first enquiry that as regards the building

of inland vessels the Indian engineering firms had an advantage which they did not have in the case of fabricated steel. We never ascertained where precisely the advantage lay, but the main point he urged was that there was less competition from abroad in the case of construction of inland vessels than in the case of any other kind of engineering steel work. Do you agree with that as far as your information goes?

Mr. Parrott.—Yes.

President.—In what precisely does the advantage consist as regards the inland vessels? Why is competition less keen and why is it more difficult for the foreign manufacturer to get the order?

Mr. Hewison.—I suppose the price is the only factor. I should not think for one thing that there are many foreign builders who cater for this class of work.

President.—I am thinking of Great Britain and practically it has been Great Britain hitherto, has it not?

Mr. Parrott.—Yes.

President.—What the future may have, one doesn't know. According to the evidence we have had from the engineering firms, the British bridge builder's competition is very severely felt, but it is not so as regards the construction of inland vessels. What we are trying to ascertain, if we can, is just where the difference lies. In our original report we ventured the surmise that there might be a heavier freight on the component parts of a ship. However the plates come out flat and it doesn't look as if there was much as that. Take the case of your own flats. I take them rather than the steamers, because they are always constructed in India. I take it that you do that, because you believe this is the cheapest way of doing it.

Mr. Parrott.—Yes.

President.—If you could effect any economy by building them at home, there is no reason why you should not do it.

Mr. Parrott.—Quite so.

President.—In the case of a Company like yourselves you must have a yard in any case for repair work. There may be this element in it. If you can so to speak get the full value out of your yard by doing a certain amount of construction that will affect the cost of your repairs.

Mr. Parrott.—Our policy, as far as possible, is to keep our yard fully employed throughout the year either with new construction or repair work and as the latter is confined as much as possible to our slack traffic season we try to keep the yard worked to its full capacity for the remainder of the year with new construction.

President.—That of course doesn't apply to people like Messrs. Burn and Company, and yet they themselves admit that there is less competition for inland vessels than in the case of other fabricated steel work. One of the reasons was that in the case of imported vessels there is a certain amount of work to be done twice over, that is erection, although it is not the whole of the erection. Is there any way in which one could discover just what that was likely to amount to per ton of material?

Mr. Parrott.—That information we could probably give the Board.*

President.—If you could, it would be useful to us. We are asking all the witnesses equally on that point.

Mr. Parrott.—It is really the cost of what the builder at home would charge for the erection of a vessel and also for dismantling it.

President.—There is another aspect of the case that has been suggested. Supposing for some reason or other your yard was fully employed and you had an imported vessel coming in, which had to be erected, you would have to

* Information not supplied—see Statement III, para. 3.

employ another engineering firm to erect it for you. Would that be more expensive than erecting it in your own yard?

Mr. Parrott.—I don't recollect a case of that kind arising.

President.—What I am really thinking of is people like the railway companies who have no shipping yard and who have to get the work done by somebody else. What was suggested to us was this, that in such cases there was an advantage in getting the whole thing done in India. If the engineering firms only got the work of erection, they would probably try to make more profit out of that, as the work must be done in India in any case. What do you think of that? There might be competition between the various engineering firms.

Mr. Parrott.—I think that it will be safe to say that it would cost us more if we go outside and have a vessel re-erected.

Mr. Ginwala.—Messrs. Kilburn and Company are the managing agents of your Company?

Mr. Parrott.—Yes.

Mr. Ginwala.—How long has this company been in existence?

Mr. Parrott.—Since 1844.

Mr. Ginwala.—Can you give us some idea—yours is a very big fleet—of the number of vessels that you have actually built in this country and the number which you have imported either now or second-hand? I suppose some of them might have been picked up second-hand.

Mr. Parrott.—A few have been taken over from different companies. I am afraid I cannot give you off-hand what part of the fleet has been actually built out here and what part has been built at home.

President.—Supposing you could give us from 1900 up to the beginning of the war the number of vessels built at home and the number built here, it would be useful.

Mr. Parrott.—Yes.*

Mr. Ginwala.—Is this passenger and cargo service combined?

Mr. Parrott.—Yes.

Mr. Ginwala.—What parts do you serve mainly?

Mr. Parrott.—We run as far as Dibrugarh in Assam which is about 1,000 miles. We serve up to Buxar on the Ganges and up to Silchar in Cachar and all round the Ganges Delta, in fact, all over Eastern Bengal wherever navigation is possible.

Mr. Ginwala.—Taking your gross total takings what are the proportions of goods traffic and passenger traffic?

Mr. Parrott.—I am afraid it is not possible to give that information off-hand.

Mr. Ginwala.—Can you let us have a copy of your last published balance sheet?

Mr. Parrott.—Yes, with pleasure.†

Mr. Ginwala.—I should like to see what your gross earnings and expenditure are, what is your block account, what is your subscribed capital and so on. Since the war, practically you have not been renewing your fleet very much?

Mr. Parrott.—Not much.

Mr. Ginwala.—But previous to that, can you give us some idea of the number of renewals that actually took place?

Mr. Parrott.—This information is easily ascertainable from the Fleet List that we have given you.

* Statement III, para. 1.

† Not printed.

Mr. Ginwala.—It is very difficult to find that out. You don't scrap anything apparently.

Mr. Parrott.—I would not like to say that we don't scrap anything.

Mr. Ginwala.—That is the difficulty. I cannot ascertain what is the proportion of your renewals and replacements to your total block account. You will have to show by some sort of figures what is going to be the additional burden in the matter of replacements and renewals and repairs whatever it is. As you stand just now you don't go in for any very large renewals. That means it would be very difficult to ascertain that figure. What we would like to have is information as regards replacements and renewals in proportion to the fleet or as a business man what you would allow for renewals and replacements in a normal year.

Mr. Parrott.—It is extremely difficult to give you any information. Actual replacements, as such, have been few and far between. I don't think there have been any actual replacement in my time though there have been larger additions to our fleet to meet an expanding business.

Mr. Ginwala.—In that case, you have nothing to fear from the duty.

Mr. Parrott.—We have certainly got to look to the future and every 10 or 15 thousand rupees added to the cost of a ship might in time make a very considerable difference to us in maintaining the efficiency of our service.

Mr. Ginwala.—Why anticipate the time by such a long way?

Mr. Parrott.—One has to in these things unfortunately. I will give you such information as I can.

Mr. Ginwala.—You say in one place that shipbuilding costs have gone up so very much that you have not thought it worth while going in for renewals. Surely in shipbuilding you cannot say that costs have gone up as much as costs in other industries?

Mr. Parrott.—That reply really refers to the general financial stringency which has kept us back from building.

Mr. Ginwala.—I will put it to you this way. I take it that like other firms doing transport business you have increased your rates and fares since the war?

Mr. Parrott.—Yes.

Mr. Ginwala.—What do you think the percentage will be?

Mr. Parrott.—Since pre-war I should say an all round average of 10 per cent. on goods traffic. Probably it is a little more in passenger fares but I should say 10 per cent. is a fair average as far as goods traffic is concerned. I might say here that we have had to revise the rates again since we raised them.

Mr. Ginwala.—Then in shipbuilding, the costs have not gone up enormously. Since the war, there has been such a big slump!

Mr. Parrott.—Our reply referred more to the financial position of the Company which like the financial position of many other concerns, during the last four or five years, has stood in the way of development.

Mr. Ginwala.—What is the deciding factor in determining whether you should build a certain ship here or import it?

Mr. Parrott.—The type of vessel in the first place.

Mr. Ginwala.—That is to say, whether it is the type which can or cannot be manufactured here by you or anybody else?

Mr. Parrott.—I would not go as far as that but we have builders at home who have been building for us for very many years and we look upon them as advisers as well as builders.

Mr. Ginwala.—That is merely convenience. You cannot say that if you go on building here you won't have the same facilities. What is there that compels you, apart from the question of convenience, that you send your orders abroad?

Mr. Parrott.—We feel that we can get the work done better at home than we can get in this country at present.

Mr. Ginwala.—In what way?

Mr. Parrott.—We can rely upon our experienced Home builders better to give us what we want and with their experience they are able to suggest certain improvements and details which we may not have thought of at the time of ordering a vessel.

Mr. Ginwala.—That might apply to a new type. Supposing you wanted to be very up to date and you wanted something quite new, I can understand your wishing to go abroad for it. Once you have got that, why should you go home for repeat orders?

Mr. Parrott.—I don't think we do wish to go abroad unless we want to construct a new type. As I said, we do build here. Once we get a vessel or two of the new type, we start building ourselves.

Mr. Ginwala.—In that case what it comes to is this. So far as you are concerned, it is only with reference to entirely new types that it would be necessary to send orders abroad?

Mr. Parrott.—Quite correct.

Mr. Ginwala.—And that is a very small percentage of your requirements.

Mr. Parrott.—Yes.

Mr. Ginwala.—You may require a ship or two of that type in two or three years. With regard to the rest you build them here either in your own works or elsewhere.

Mr. Parrott.—That is correct.

Mr. Ginwala.—Do you have to build your steamers elsewhere in India?

Mr. Parrott.—My recollection is we have never gone outside our own yard and our builders at home for anything except flats, launches and barges. We have never had a steamer built by an outside firm to my knowledge.

Mr. Ginwala.—So you cannot give an opinion as to the kind of work that is turned out here?

Mr. Parrott.—No.

Mr. Ginwala.—So far as your own works are concerned, I suppose you can build ships as good as imported ones?

Mr. Hewison.—We have built recently two boats which are almost exactly the same as those imported and re-erected by us. They are satisfactory in every way, but the workmanship in some respects is not so fine as that in the imported vessels.

Mr. Ginwala.—What size is that?

Mr. Hewison.—These are steamers 230 feet long. We ourselves have not the same facilities as the builders at home for doing work which makes for light construction. We have to make it a bit heavier. That is because of the lack of facilities in India. The question of draught is a very serious thing with our ships.

Mr. Ginwala.—So far, you have been able to overcome that?

Mr. Hewison.—All our ships are slightly heavier than the ships built at home.

Mr. Ginwala.—Have you found any navigation difficulty?

Mr. Parrott.—There is a disadvantage.

Mr. Ginwala.—But the disadvantage has not been so great that you have thought of importing these ships?

Mr. Parrott.—No. Not on that account alone.

Mr. Ginwala.—The 25 per cent. duty applies to fabricated material in which, apparently, at present your imported vessels are included, if they are not brought out in sections. We recommended that a duty of 25 per cent. *ad valorem* should be imposed on certain classes of fabricated materials, which happen to be more or less similar to yours. In that, there are two elements. One is that the duty on unfabricated steel went up from 10 per cent. *ad valorem* to 25 per cent. *ad valorem*. The result was that the price of the raw material to the domestic manufacturer went up by the difference between the two. Also there is the wastage of 10 per cent. On that also he had to pay a higher duty. Now if you get this exemption which you are asking for or if the duty is reduced to 10 per cent., then on the unfabricated part of the metal you would be paying only 10 per cent., whereas the other consumers of similar material have to pay 25 per cent.

Mr. Parrott.—I don't quite follow why we should pay only 10 per cent.

Mr. Ginwala.—Because the whole duty is reduced to 10 per cent. *ad valorem*.

Mr. Parrott.—That is only on fabricated material.

Mr. Ginwala.—On the unfabricated steel used in making fabricated it would also be 10 per cent.

Mr. Parrott.—I see what you mean.

President.—As a vessel consists mostly of plates and structurals, the duty is Rs. 30 a ton. If you add the 10 per cent. wastage, it comes to Rs. 33 per ton. The Indian manufacturer is taxed to the extent of Rs. 33 a ton on what he builds, whereas if the duty is reduced to 10 per cent. on the imported fabricated material, a company like yours would be paying a little over Rs. 20 per ton. The result of reducing the duty to 10 per cent. would be that the Indian shipbuilder would be directly at a disadvantage.

Mr. Ginwala.—Why should you be put at an advantage of 10 per cent. or whatever it is. Look at yourselves as a general consumer. Other consumers of plates and structurals pay at a higher rate. Why should you want to pay at a little lower rate? You must explain on what grounds you claim this.

Mr. Parrott.—It is rather difficult to reply to that question. As a concern serving the public interests and developing the country's natural resources I think we might be given some advantage over an ordinary person who is, say, building a house for instance, or a bridge.

Mr. Ginwala.—Take railway bridges.

Mr. Parrott.—Are all materials for railway bridges subject to the duty?

Mr. Ginwala.—Yes. Apart from your claim that you are serving the public you don't want to be put on a different footing from other consumers?

Mr. Parrott.—I don't think so.

Mr. Ginwala.—In our previous Report, dealing with another aspect of the engineering industry, this is what we called compensating protection. It means this: the price of raw materials used by the domestic producer go up in consequence of the higher duty by his being granted compensating protection he is put in the same position as he was before the additional duties on his raw materials were imposed. In our first enquiry we considered that of the total duty of Rs. 62, Rs. 33 would be accounted for by this compensating protection and Rs. 29 by fabrication, so that the proportion is 33: 29. It is roughly equal, that is what it comes to.

Mr. Parrott.—Yes.

President.—Supposing this view was taken that it was not reasonable that the tariff should be adjusted in such a way that the Indian shipbuilder is at a definite disadvantage, roughly on the figures I have worked out if the duty were 15 per cent. on the imported fabricated parts of ships, that would practically exactly counterbalance the duty he has to pay on his material. On that basis if you think it is reasonable that the duty should be at any rate not less than that, we may get what we call equality of tariff treatment.

Mr. Parrott.—I think it is quite reasonable.

President.—I am assuming that no more is required, but without even answering that question, one might say "we don't think the duties on fabricated parts of ships should be less than the duty the Indian builder will have to pay on his material." Would that be an unreasonable view to take?

Mr. Parrott.—No, it would not.

Mr. Ginwala.—Would you agree that it would be in the interest of the country as a whole to promote shipbuilding as much as possible?

Mr. Parrott.—Undoubtedly.

Mr. Ginwala.—And that if by the removal of this duty, which has accidentally come to apply to your ships, we might not accelerate shipbuilding in this country. From that point of view it would be advisable for the country to say "the duty has already come in, let it stay"?

Mr. Parrott.—Looking at it from that point of view I think you are quite right; from the local shipbuilding point of view it is quite correct.

President.—If, on the other hand, the duty on the vessels means a very heavy tax on transportation, you would ask us to consider that aspect of the case, is that so?

Mr. Parrott.—Yes.

Mr. Ginwala.—Let me put it to you this way. Eliminating what I just now put as compensating protection, only a small amount of protection remains which from your point of view may be considered as injurious. Having regard to that fact would you object to it from the national point of view?

Mr. Parrott.—No, we cannot object from that point of view.

Mr. Ginwala.—Do you consider that among the engineering firms that go in for shipbuilding there is reasonable competition?

Mr. Parrott.—Yes, there is.

Mr. Ginwala.—Is there a combine or anything of the kind to regulate the rates?

Mr. Parrott.—Not that I know of. When we intend building locally outside our own yard we usually call for tenders from the different firms in Calcutta and from results I don't think there has been any question of a combine.

Mr. Ginwala.—When you place orders locally for barges, flats, etc., do you find the work satisfactory?

Mr. Parrott.—Yes.

Mr. Ginwala.—Has there been any difficulty in getting delivery in time?

Mr. Parrott.—No.

Mr. Ginwala.—I think you said in some part of your evidence that you save two months' time by sending orders for ships abroad?

Mr. Parrott.—Yes. Taking the time on a re-erection job as compared with the time taken in the construction of a new vessel there is a saving of about two months' time in favour of a re-erected vessel which has come out from Home.

Mr. Ginwala.—That depends on the condition of trade at Home?

Mr. Parrot.—I mean from the time the parts arrive from Home and re-erection commences.

Mr. Ginwala.—There will not be a saving of time necessarily. You may send out an order and it may be very much delayed.

Mr. Parrott.—We try and arrange to get the parts that we want in time. There is a difference of two months so far as the work in the yard is concerned.

President.—It occupies your yard for a shorter time, is that it?

Mr. Parrott.—Yes.

Mr. Ginwala.—That may be sometimes an advantage, but on the other hand by placing orders here you may be better off in other ways. You can

inspect the work yourself, you can supervise the work, you can see what materials are used, and you can give oral instructions about any changes and so on, so that the advantage is not entirely on the side of the foreign builder.

Mr. Parrott.—Yes, there are certain advantages.

Mr. Ginwala.—From your answer to Question 8 as far as I can see you would import practically the hull and the machinery, that is what it comes to?

Mr. Parrott.—Yes, and the rest of the vessel is locally manufactured.

President.—There may be one or two small fittings, pumps and so on?

Mr. Parrott.—That would come as part of the machinery.

Mr. Ginwala.—So far as your requirements are concerned, I think you said that you could do practically the whole thing here in the matter of shipbuilding, except when you want a new type of vessel, that so far as the process of manufacture is concerned you can carry that out here?

Mr. Parrott.—Yes, with the exception of machinery.

Mr. Ginwala.—The Irrawaddy Flotilla Company say that on some types of vessels they have got to use galvanized sheets in the hull and that the galvanizing has to be done after furnacing and shaping and that this cannot be done here.

Mr. Hewison.—We don't use galvanized plates.

Mr. Ginwala.—You have not found it a disadvantage?

Mr. Hewison.—No.

Mr. Ginwala.—Did you do any galvanizing here before?

Mr. Hewison.—We used to have galvanized plates out from Home. The only galvanized plates we used were those used on ships which were built at Home and re-erected out here.

Mr. Ginwala.—You have not used them in your own works?

Mr. Hewison.—No.

President.—The Irrawaddy Flotilla Company suggest that it would be economical to have galvanized sheets because you would not have to allow so much margin for corrosion.

Mr. Ginwala.—What is the lightest draft out here?

Mr. Parrott.—1′ 10″. Such vessels run in very shallow rivers.

Mr. Ginwala.—What is the load it would carry?

Mr. Parrott.—About 1,500 maunds of cargo and probably 200 passengers.

Mr. Ginwala.—What is the length of the launch?

Mr. Parrott.—87 feet. We call them stern wheel feeder service steamers.

Mr. Ginwala.—In your creek steamers have you got a launch about 115′ × 25′ × 76′?

Mr. Parrott.—No. Our nearest type is about 105 feet long.

Mr. Ginwala.—What is the loaded draft of that?

Mr. Parrott.—5 feet.

President.—In your Answer 1 to the questionnaire you mention one steamer 105′×24′ 6″×7′ 6″. Is that the one you are thinking of?

Mr. Parrott.—Yes.

Mr. Ginwala.—You don't use any galvanized bottoms for that?

Mr. Parrott.—No.

Mr. Ginwala.—That is to say, apart from the question of any effect of corrosion you would not use any galvanized plates?

Mr. Parrott.—We don't use any galvanized plates at all in the construction of our vessels.

Dr. Matthai.—With regard to the question that Mr. Ginwala put to you as to whether there is any special ground on which you can base your case for

exceptional treatment, I want to put it to you whether you consider this a tenable suggestion, namely that of all the various forms of transport you have in India river transport is the least developed?

Mr. Parrott.—Yes.

Dr. Matthai.—And it is specially important that you should do all that you can to develop it, so that supposing it happened that this duty was going to tell upon the cost of that transport, it is a serious matter from the national point of view and it is very important that we should treat this in the same way in which we treat the railways. Do you consider that a reasonable suggestion?

Mr. Parrott.—I accept that as a reasonable suggestion. What I would add is, as far as the present duty is concerned, if we found that the duty was telling against our building at home a more efficient type of vessel, than we could build here. I don't think it would stop us from continuing our operations. We should build if at all possible in this country and run the risk of not being quite so efficient in our services.

Dr. Matthai.—Now with regard to the question of rates and fares, you said in answer to a question that there has been a rise of about 10 per cent. since pre-war.

Mr. Parrott.—Yes.

Dr. Matthai.—I think the suggestion is made in a representation we had from the Irrawaddy Flotilla Company that it is almost impossible, down there at any rate, to raise the rates and fares above the present limit. Their suggestion seems to me, as far as I gathered it, that the rates now are almost the highest the traffic can bear. If you put it any higher, you will lose traffic. Would that be true with regard to your position?

Mr. Parrott.—I think there may be certain directions in which we would probably get a little extra freight, but speaking generally we think we have about reached the limit as regards increased rates since the war.

Dr. Matthai.—There is another suggestion that they make and that is with regard to wages that labour is cheaper in Calcutta in shipbuilding. I want to ask you a question on that. Would you say if you take the shipbuilding industry in India as compared with shipbuilding in the United Kingdom that labour is cheaper in India.

Mr. Hewison.—I don't think it is cheaper really.

Dr. Matthai.—Could you give us any sort of typical figures? If you take wages in relation to outturn, is it at all possible to say that labour in India is cheaper in shipbuilding?

Mr. Parrott.—No.

Dr. Matthai.—I was looking through the evidence given by one of the shipbuilders in Calcutta before the Mercantile Marine Committee and one of them who has had apparently experience both of India and of United Kingdom said in regard to rivetting, the rate of wages in the United Kingdom is three times as high as in India whereas the outturn in the United Kingdom is three times more than it is in India. That means the position is the same more or less in both countries. Where, however, it is more expensive is, in his opinion, in regard to supervision which is an item that you have got to incur. Would you take that as the correct position?

Mr. Hewison.—Yes. Another point is this, that the rivetting done in Europe is much more efficient than the rivetting done here owing to the habits of workmen. Another thing is less wastage of material there.

Dr. Matthai.—The President was asking you whether there was any kind of advantage that the shipbuilding industry had in India which the other engineering industries don't have compared with the industries in the United Kingdom. Now I want to put to you one or two suggestions and see whether you think they are reasonable. One of them is, if you take ordinary structural work like bridges and so on, there is a very large market for that kind of work in India, but if you take river ship construction, there is a limited

market. It is not likely that British firms would like to form connections with Indian market when there is not a possibility of a steady flow of orders. Would you take that as a possible reason why there is not the same amount of competition in regard to inland shipbuilding?

Mr. Parrott.—I should think it is very likely a factor.

Dr. Matthai.—Orders are rare and on the whole they are small orders.

Mr. Parrott.—Yes.

President.—I take it that all river steamship companies have got their own companies to deal with. The bulk of the orders will only be coming from them, so that what is left is the odds and requirements of the Port Commissioners and so on—that is a still more limited market.

Mr. Parrott.—Quite so.

Dr. Matthai.—There is just one other point that I want to ask you. What is your own general impression with regard to the demand there is for the building of inland ships in India? Do you think that the shipbuilding plant in this country is really in excess of the demand for ships in the country?

Mr. Parrott.—I think so.

President.—There is just one question I want to ask for comparing with the figures given by the Irrawaddy Flotilla Company. What would be the quantity of steel you use in making your creek steamer, which is item C in your answer to Question 1?

Mr. Hewison.—75 tons.

Witness No. 3.

THE SHALIMAR WORKS, LIMITED

A.—WRITTEN.

Statement I.—Letter, dated the 12th October 1925.

With reference to your No. 517 of the 17th September 1925, addressed to the Secretary, the Indian Engineering Association, Calcutta, regarding the subject of import duty on ships and other vessels for inland and harbour navigation, the Secretary of the Engineering Association has handed one copy of the questionnaire to us intimating that we may make our own representation to the Tariff Board.

We have the honour to answer the questionnaire as follows:—

1. Our firm construct vessels of the following type:—
   - (*a*) Combined passenger and cargo vessels.
   - (*b*) Tugs fitted with steam machinery.
   - (*c*) Tugs fitted with internal combustion machinery.
   - (*d*) Launches fitted with steam machinery.
   - (*e*) Launches fitted with internal combustion machinery.
   - (*f*) Cargo boats and barges ranging from 25 to 130 tons capacity.
   - (*g*) Flats.
   - (*h*) Pontoons.

2. (*a*) Rs. 2,30,000 130′ 0″×23′ 0″× 9′ 0″.
   (*b*) Rs. 1,87,000 80′ 0″×21′ 0″×11′ 0″.
   (*c*) Rs. 47,000 60′ 0″×14′ 0″× 7′ 6″.
   (*d*) Rs. 1,85,000 84′ 6″×15′ 0″× 6′ 9″.
   (*e*) Rs. 20,000 65′ 0″×14′ 0″× 5′ 4½″.
   (*f*) Rs. 8,500 for boats 52′ 0″×15′ 0″×8′ 0″ up to
   Rs. 34,000 for boats 85′ 0″×22′ 0″×8′ 0″.
   (*g*) Rs. 90,000 200′ 0″×28′ 0″×9′ 6″.
   (*h*) Rs. 14,400 60′ 0″×16′ 0″× 6′ 2″.

3.

	For power-driven vessels. Machinery imported.	For barges and pontoons.
(*a*)	15 per cent.	38 per cent. to 52 per cent. according to type
(*b*)	48 per cent.	.....
(*c*)	5 per cent.	.. ..
(*d*)	12 per cent.	15 per cent. to 8 per cent.
(*e*)	20 per cent.	47 per cent. to 40 per cent.

4. 14 per cent. for steel plates and 11 per cent. for steel angles.
5. (*a*) 58 per cent.
   (*b*) 18 per cent.
   (*c*) 14 per cent.
   (*d*) 10 per cent. (consists of galvanised sheets, bolts and nuts).
6. (*a*) Approximately 5 per cent.
   (*b*) Approximately 10 per cent. to 20 per cent.
7. The answer is in the affirmative.

8. We agree with the Tariff Board's conclusion, and are not aware of any facts that could have been brought to the notice of the Board to have led them to take another view.

9. No.

10. No such specific cases have arisen in our firm.

11. (*a*) 180′ 0″.
(*b*) 120′ 0″.
(*c*) 80′ 0″.
(*d*) 100′ 0″.
(*e*) 80′ 0″.
(*f*) 180′ 0″.
(*g*) 200′ 0″.
(*h*) 120′ 0″.

12. The answer is in the affirmative.

13. 20 per cent. and 27 per cent.

Statement II.—Letter, dated the 8th January 1926, from the Shalimar Works Limited, Howrah.

In my oral evidence I promised to try and obtain some information for the President as to the c.i.f. price of fabricated steel parts and I will give you a concrete example.

A few months ago, my firm called for tenders for a new Saw mill measuring 80′ 0″ × 80′ 0″ with galvanized roof and a firm quoted us on the 10th December last Rs. 19,826 lump sum for the supply and delivery at Shalimar of materials for this building.

Approximate weight—1,293 cwts.
Erection on our foundations—Rs. 3,264.

These people also offered a building of Home manufacture and I called them up on the 'phone the other day for a c.i.f. price for the same materials and they replied also by 'phone that the Home price came to within Rs. 100 of the Calcutta price when the 25 per cent. customs duty was added.

On the face of these figures, therefore, it seems absolutely essential to the Indian Shipbuilders' interests to maintain the duty on fabricated steel sections at 25 per cent. If it is reduced, it would put them to a great disadvantage.

Statement III.—Letter dated 8th February 1926, from the Shalimar Works, Limited, Howrah.

We return herewith the copy of the record of evidence tendered before the Tariff Board by our Mr. Cameron duly corrected. There are some statements given in error, which require to be amended and we comment on these below.

(1) *Cost of erecting a vessel in England and dismantling.*

We regret we have been unable to get any information on this point from our records.

(2) *Freight.*

We have no records as we have not imported any vessels.

(3) *Maximum length of steamers.*

We have built and engined two coasting steamers "Penguin" and "Cormorant" of the following dimensions:—

Length 145′ 0″ B. P.
Breadth 27′ 0″.
Depth 11′ 0″.
Carrying capacity 500 tons "dead" weight.
And 4 flats 220′×30′×9′ having a carrying capacity of 830 tons.

(4) *Outfit of vessels.*

We attach a statement showing the number of vessels built and delivered in 1925, also at the bottom the totals for our maximum year 1913.

The actual weight of steel used in the construction of new vessels built by us, was as follows:—

1925	337	tons	carrying	capacity	1,117.
1924	160	,,	,,	,,	630.
1923	208	,,	,,	,,	537.
1922	291	,,	,,	,,	975.
1921	602	,,	,,	,,	2,342.

(5) *C.I.F. prices.*

We are sorry we are unable to obtain any information.

(6) *Tonnage.*

6,000 tons is an error. We deal with the capacity and weight in the previous statements but for further information regarding the actual weight of the steel used by us in any year, please kindly refer to our letter to the Tariff Board, dated the 11th September 1923.

THE SHALIMAR WORKS, LIMITED.

B.—Oral.

Evidence of Mr. A. CAMERON, recorded at Calcutta on Tuesday, the 5th January 1926.

President.—I think it would be most convenient to begin with your answers to questions 7, 8 and 9 of the questionnaire. It is not perfectly clear and I am not quite certain what your attitude is in the matter, because you say you agree with what Mr. Cochran said that only compensating protection is needed. You also agree with the Board that no protection is needed.

Mr. Cameron.—It is rather conflicting but we contend protection is required.

President.—The answers are very brief, but it is necessary that we should understand clearly what your position is in the matter. I think probably you misunderstood one of the questions.

Mr. Cameron.—I think we have.

President.—Let me put it in a different way. The Irrawaddy Flotilla Company want the 25 per cent. duty to be back to 10 per cent. What is your view about that?

Mr. Cameron.—I am against that.

President.—Do you want to retain the 25 per cent. duty?

Mr. Cameron.—Yes. As any advantages we may have should not be taken away.

President.—Messrs. Burn and Company were giving their evidence yesterday and their view was that the 25 per cent. duty ought to be increased to the same extent as the duty on fabricated steel may be increased generally. All that you want is merely the retention of the existing duty or are you asking for an increase.

Mr. Cameron.—I am quite satisfied with retention of the existing duty, but as fabricated steel is similar to shipbuilding they should be on the same basis.

President.—In answer to question 9, you say the need for protective duties is not greater than it was in 1923. Your view is that 25 per cent. duty was wanted in 1923 and is wanted now.

Mr. Cameron.—That is exactly what we want.

President.—What view do you take about the rise in the rupee sterling exchange?

Mr. Cameron.—It certainly affects the landed cost of steel here.

President.—Practically, does not the foreign manufacturer benefit to the same extent?

Mr. Cameron.—Yes.

President.—He fabricates his steel and sends it out. Still he gets the benefit. The exchange affects the raw steel which is part of the fabricated steel, so to speak.

Mr. Cameron.—He is getting the benefit more than the Indian shipbuilder.

President.—At any rate you don't lay any stress on the rise in the exchange.

Mr. Cameron.—I don't.

President.—What Messrs. Burn and Company told us was that it affected the Indian manufacturer unfavourably, in so far as it reduced the fabrication cost of the foreign manufacturer. So far as it merely affected the price of the unfabricated steel, it was the same for both parties. They thought that whatever the foreign manufacturer had to spend on fabricating the steel, when translated into rupees, became less.

Mr. Cameron.—Yes.

President.—However your firm don't lay stress on that point.

Mr. Cameron.—No, as this part did not occur to me.

President.—The Board's original view was that the case even for compensating protection was not clearly established in the case of vessels.

Mr. Cameron.—No, as only general evidence was given.

President.—What it practically came to is this that on the evidence we received, especially Mr. Cochran's evidence, on behalf of Messrs. Burn and Company, the Indian manufacturer had an advantage as regards the manufacture of steamers and other Indian vessels, which he has not got in the case of fabricated steel generally. The difficulty was we could not determine what the amount of that advantage was. I am afraid we are very much in the same position now. Had the duty actually remained at 10 per cent., we might by this time be getting better evidence. As the duty was raised it is still exceedingly difficult to get any direct comparison between the price of the vessel made in India and the price of the imported vessel. You say you are not in a position to give us any facts.

Mr. Cameron.—I am afraid I can't help you very far in that respect.

President.—It puts the Board in a somewhat difficult position, because there is no virtue in the 25 per cent. That is merely the rate considered appropriate in 1923-1924 for fabricated steel generally. Since then we have made another enquiry and we have recommended that the duty on fabricated steel should be raised to 32½ per cent. The 25 per cent. duty on ships and other Indian vessels is, so to speak, an accident. There is nothing behind it. It might have been 30, 40, or almost any figure you choose to name. It is very difficult, therefore, for the Board to determine what is the fair measure of protection assuming that protection is required at all.

Mr. Cameron.—I don't know whether anybody will be able to help you, but I understand that the Irrawaddy Flotilla Company have placed an order with Vickers of Dublin for a number of vessels.

President.—They are coming to give evidence on Friday.

Mr. Cameron.—They may be able to give you the price they are paying for their vessels. They will be sent out for re-erection in India.

President.—What they have told us is that they make the smaller vessels in India, and will continue to do so even though the duty is reduced to 10 per cent. The larger vessels they import now and they will continue to import. I don't think that they will ever purchase vessels from Calcutta Engineering firms.

Mr. Cameron.—Quite, but I think they could be satisfactorily built here.

President.—The mere fact that they do build in India—however, small the size of the vessel may be—is evidence that Indian manufacturer has an advantage.

Mr. Cameron.—Admittedly there may be an advantage.

President.—What would you say that that advantage was due to?

Mr. Cameron.—Are you speaking of barges, and launches or what?

President.—There are more flats and barges than powercraft, I take it, manufactured in India?

Mr. Cameron.—Yes.

President.—Let us take flats, as an example.

Mr. Cameron.—Unfortunately, during my time we have not built flats in our works.

President.—If that is not a suitable example, take any other type you like.

Mr. Cameron.—Our general run of construction is 50 ton and 100 ton barges. I think the advantage probably lies more in labour charges than in anything else.

President.—Wouldn't that fact affect equally all kinds of fabricated steel?

Mr. Cameron.—I would not say it does.

President.—Why is it that cheap labour is a greater advantage as regards the construction of barges than as regards the other work?

Mr. Cameron.—In structural steel work there is a difference in the rates of labour as distinct from ship or boat construction.

President.—What is the difference?

Mr. Cameron.—Probably Rs. 2 to Rs. 3 a cwt.

President.—Which way it is?

Mr. Cameron.—It is dearer in the case of the barge than it is in structural work.

President.—Unless there is a corresponding difference abroad, one does not see that that should give you an advantage. It is rather a disadvantage.

Mr. Cameron.—I don't quite follow your point.

President.—You say in respect of labour, Indian labour works out cheaper when you are making barges than when you are making bridges.

Mr. Cameron.—Yes, but the overhead charges are much less.

President.—What you have to pay per ton for labour in the case of a boat is higher than in the case of a bridge?

Mr. Cameron.—Yes.

President.—I don't quite see how that gives you an advantage if you have got to pay more.

Mr. Cameron.—Are you referring to the difference between the cost of the boat imported and the cost of a boat built here?

President.—The point is this. Take a bridge as typical. On the one side, the evidence we have had in our enquiry is that competition is very keen and that the foreign manufacturer is constantly getting the order. As regards ships and other inland vessels, the evidence is that competition is not so keen and that the foreign manufacturer cannot get the order at any rate in Calcutta. The inference is, as it was admitted by Mr. Cochran in respect of boats and flats, the Indian manufacturer has got some advantage which he has not got in making bridges and other structural work. The point I am trying to get at is what is the advantage. How is it that competition is not so keen from abroad for ships and boats? What precisely is the reason? Let me put to you the two reasons that have been suggested to us. One of them is that when a foreign manufacturer is asked to build an inland vessel for use in India, he has got to erect it in his own works in the process of making it, and then he has got to dismantle it and then it has got to be re-erected in India. Therefore, in the case of the imported vessel, part of the work has got to be done twice over. That means an addition to the cost. What do you think of that? Do you think that that affects the matter much?

Mr. Cameron.—No doubt it does. It all adds to the cost by the time that it is finished and delivered afloat, but they may have other reasons with regard to the difference between a boat and a bridge.

President.—The difference there would be this that the Indian Engineering firm has also got to erect the span or whatever it is in its own workshop and then dismantle it, send it by rail and then re-erect it. In that case it also has got to incur the double cost, so that there is no advantage. In the case of boats and ships, would it be possible to put a figure on the extra cost of erecting twice over?

Mr. Cameron.—There is one case that occurs to my mind. That is the fire float plying for the Port Commissioners but it is an exceptional type of vessel. The extra cost there is represented by Rs. 30,000 to Rs. 40,000 in the value of the boat.

President.—What is the total value of that boat?

Mr. Cameron.—Approximately Rs. 3,00,000.

President.—Do you think it would add as much as that?

Mr. Cameron.—Yes.

Mr. Ginwala.—Do you mean that the cost of re-erection in this country would be Rs. 40,000?

Mr. Cameron.—Yes.

Mr. Ginwala.—That is hardly a point we are asking about.

President.—The cost of erecting a vessel after it has arrived is Rs. 40,000. The whole of that is not double cost.

Mr. Cameron.—They don't spend Rs. 40,000 in erecting it at home. If the vessel had come under its own power, it would have come under 2½ per cent. If it came in as fabricated, it would have come under 10 per cent. in those days.

President.—The question of the duty does not come in at the moment. It is simply this that Rs. 40,000 would be incurred in any case whether the vessel was built in India or built abroad. The point that we are after is what is the additional cost which the foreign manufacturer has to incur in England for the work which was done twice over. That is what we are trying to get at and I am afraid that it is not likely to amount to anything like 20 per cent. of the value of the vessel.

Mr. Ginwala.—As I understand it, duplication of work is involved at one stage in both countries. First of all you have got to erect the thing whether you build it here or abroad. Supposing you build a ship here or build it at home, the first thing you do is to build it.

Mr. Cameron.—Yes.

Mr. Ginwala.—In this country you go on straight from that to rivetting. You remove the bolts and go on to rivetting.

Mr. Cameron.—Yes.

Mr. Ginwala.—At home you put the bolts in and you have got to remove the bolts. That is all the additional work involved, is not that so?

Mr. Cameron.—Yes.

President.—It is very difficult to say. There is a certain amount of handling quite apart from the actual rivetting. You have got to dismantle it. I am trying to find out what it is.

Mr. Cameron.—I will look into the question and see if we can give you any reliable information.*

President.—We should be very grateful if you could. What we want is what you have got to spend for erecting in England and dismantling it. The Indian manufacturer has got to do neither the one nor the other.

Mr. Ginwala.—Before rivetting is done here, don't you have to put in the bolts?

Mr. Cameron.—They have got to be screwed up.

Mr. Ginwala.—And then you go on to rivet, is that not so?

Mr. Cameron.—Yes.

Mr. Ginwala.—At home the same process will be followed except that the rivetting will not be done there.

Mr. Cameron.—They would do only part of the rivetting.

President.—Another reason mentioned, which gives the Indian manufacturer a certain advantage, is that unless the importer has got a yard of his own, where he can erect it himself, he has got to get the work done by the Indian manufacturer. His charge will not be so low as it would be if he was asked to make the whole of the vessel himself. Therefore, the purchaser who has not got a yard of his own may find it more convenient to deal direct with an Indian firm and have the whole thing done in this country. The whole thing will be in the hand of one firm from start to finish. Do you think that that is the correct attitude of the purchaser?

* Information not available (Statement III).

Mr. Cameron.—I don't think so; sometimes it may be.

President.—Take the case of a railway company who wants a steamer for its ferry service. I take it, when a ferry is imported, it has got to be erected at Calcutta. I don't think that the Indian railway have got facilities for that.

Mr. Cameron.—They call for comparative tenders from various ship building firms.

President.—Would not there be an advantage to the purchaser supposing the difference in price was not great, in dealing with the firm on the spot who would put the whole thing through from start to finish?

Mr. Cameron.—It is certainly more satisfactory to do it here than to have it made partly at home and then re-erected here by another firm altogether.

President.—The third thing that has been mentioned to us is whether the freight on fabricated steel parts is not higher than the freight on the unfabricated steel. The evidence we have had from the Irrawaddy Flotilla Company is that they pay £3 a ton on the fabricated steel parts of imported vessels. That figure was challenged by Messrs. Burn and Company and they don't think that it would be as much as that. We believe the plates would be charged by weight and not by measurement. Can you give us any information as to the freight payable on the fabricated steel parts of imported vessels?

Mr. Cameron.—I will look that up.*

President.—Then there are a few questions I want to put to you about some of the answers that you have given. In your answer to question 2 you say that the maximum length of any steamer you constructed is about 130 ft., whereas in answer to question 11 you give the largest length of the steamer you can construct as 180 ft.

Mr. Cameron.—It should not be a steamer. It should be a flat.

President.—I think not. It comes under (a) "Combined passenger and Cargo vessels."

Mr. Cameron.—That is a mistake.

President.—What is the largest size that you have built?

Mr. Cameron.—We can take flats up to 180 feet.

President.—That is all you are equipped to manufacture at present?

Mr. Cameron.—Yes.

President.—What would be the total amount of work that you can put through in a year? Perhaps the easiest way of getting it is what tonnage of steel could you deal with in making inland vessels of various kinds in a year?

Mr. Cameron.—I will send it to you later.†

President.—Let us have your actual output of vessels during the last five years and if in one of these years, you have not reached your maximum output then the output of the year in which your output was largest.

Mr. Cameron.—Yes.†

President.—And it would be useful to have the dimensions of the vessels constructed in each case.

Mr. Cameron.—Yes.†

Mr. Ginwala.—Also the tonnage?

Mr. Cameron.—Do you mean the total weight of steel?

Mr. Ginwala.—I want to know the carrying capacity.

Mr. Cameron.—Yes.†

President.—In answer to question 3, you have given the percentages of the total cost of a vessel represented by various classes of expenditure. I notice that in the case of barges and pontoons you have not given any percentage

* Information not available (Statement III).
† Statement III.

figure under "other imported materials." Is that actually so? Do you not use any imported material?

Mr. Cameron.—Not much.

President.—I think it is not quite the same with Messrs. Burn and Company. They are doing a large amount of flats. You say you don't do flats.

Mr. Cameron.—No.

President.—That very likely explains the difference.

Mr. Cameron.—They use galvanized sheets which are all imported.

President.—What is the locally purchased material which you use in the case of a barge?

Mr. Cameron.—Principally wood work and pig iron.

President.—Pig iron you use in making your own castings?

Mr. Cameron.—Yes.

President.—In answer to question 5, you give the percentage of other kinds of steel as 10 per cent., which you say consists of galvanized sheets, bolts and nuts. It is a very small point. I don't think that bolts and nuts are protected, are they?

Mr. Cameron.—No.

President.—Strictly speaking, they ought not to be there being a very small item.

Mr. Cameron.—Quite negligible.

President.—I take it that they would be between 1 and 2 per cent. which would be the maximum.

Mr. Cameron.—Yes.

President.—What is the galvanized sheet used for? What part of the vessel is made out of the galvanized sheet? I take it that these percentages refer to barges and pontoons.

Mr. Cameron.—Very little galvanized sheet is used.

President.—If it is a flat it will be used for roofing it and so on.

Mr. Cameron.—Yes.—Galvanized sheet may be used in the construction of a small water tank or something like that and that is plain galvanized sheet.

President.—The Irrawaddy Flotilla Company have told us in Burma, especially in the Delta, they have to make the hull and certain other parts out of galvanized plates, because of the corrosion of the river there. Have you ever to do that?

Mr. Cameron.—No.

President.—So that point does not come in.

Mr. Cameron.—No.

President.—In your answer to question 13, I am afraid I don't understand the percentages. The question was "If the wastage is taken at 10 per cent. the protective duties on plates, beams, angles, channels, etc., add Rs. 33 a ton and the duty on bars Rs. 44 a ton to the cost of the fabricated steel used for the construction of inland vessels. What percentages of the c.i.f. cost of imported fabricated steel parts would these sums represent?" The answer you have given means that the cost of fabricated steel parts is only about Rs. 165, which seems to me to be rather a low figure.

Mr. Cameron.—I think we had some difficulty in making out this question.

President.—What we were thinking of was this. The Indian manufacturer is subject to duties on unfabricated steel. These are definite amounts and when we know the rate of wastage we can tell what that means per ton of fabricated material. To know to what extent he is handicapped when compared with the foreign manufacturer, we have got to know at what price the foreign manufacturer is sending his stuff out. Then we can find out the additional burden imposed on the Indian manufacturer by the protective duties

as compared with the price of the imported stuff. Have you any idea at all? Just take the fabricated steel parts, let us say hull. What do you think it would cost per ton c.i.f.? I know it is very difficult to get the information, but it is very important to us if you can give it.

Mr. Cameron.—I cannot speak from memory, but we had a case before us a month or two ago in connection with an enquiry from Arracan Flotilla Company. They were calling for tenders at home and they were also calling for tenders out here and I don't remember what the price was for the imported vessel.

President.—Do you think by looking up your records you might be able to give us some information?

Mr. Cameron.—I will look up and see.*

President.—Don't mind the percentages. What we want is the c.i.f. cost per ton of the imported fabricated material. Supposing the Board came to the conclusion that no case for protection had been made out and recommended that the duty should go back to the 10 per cent.—and let us suppose that the Government of India and the Legislative Assembly approved of that—what do you think would be the result?

Mr. Cameron.—To be quite frank, I don't think we have been able to put forward any case from our side for an increase of duty above 25 per cent.

President.—Are you apprehensive that a number of orders would begin to be placed abroad instead of being placed in India?

Mr. Cameron.—No, so long as the protection duty remains at 25 per cent.

President.—That is as regards the kind of vessels that you make?

Mr. Cameron.—Yes.

President.—It is interesting to get your views. None of us knows what might happen, that is the trouble. There is so little direct evidence as to how the two prices compare. Are the vessels which you make run in and round about Calcutta?

Mr. Cameron.—Yes.

President.—Bengal and Assam, speaking generally?

Mr. Cameron.—Yes.

President.—Have you ever sent vessels further afield than that?

Mr. Cameron.—We have sent 6 barges to Vizagapatam. We have 2 more under construction for them.

President.—How would they be sent?

Mr. Cameron.—They are towed down.

Mr. Ginwala.—Were they recent orders?

Mr. Cameron.—They placed the order with us last year at the beginning of 1925.

Mr. Ginwala.—Were the orders received by you after the imposition of the new duties?

Mr. Cameron.—They were placed after that.

Mr. Ginwala.—It is just possible that you might not have got them except for the duty. Are your shops equipped to do general engineering as well or do you only specialise in shipbuilding?

Mr. Cameron.—We are equipped for general engineering too.

Mr. Ginwala.—What do you do in general engineering?

Mr. Cameron.—All sorts of castings and pipes.

Mr. Ginwala.—Do you do any fabrication work such as girder work?

Mr. Cameron.—We don't do anything like that.

Mr. Ginwala.—You don't do any structural work?

* Information not available (Statement III).

Mr. Cameron.—No structural work at all.

Mr. Ginwala.—Except shipbuilding?

Mr. Cameron.—And marine engineering, shafting, plummer, blocks, etc.

Mr. Ginwala.—How many years have your works been in existence?

Mr. Cameron.—Upwards of 33 years.

Mr. Ginwala.—Does your shipbuilding experience extend to about 35 years?

Mr. Cameron.—Our works were first started as a sort of repair workshop in connection with the Asiatic Steamship Company. They gradually developed and extended to the size they are to-day.

Mr. Ginwala.—When did you commence shipbuilding?

Mr. Cameron.—About 22 years ago.

Mr. Ginwala.—What is the maximum capacity of your shops in shipbuilding in tonnage?

Mr. Cameron.—Speaking from memory, it is about 6,000* tons of steel.

Mr. Ginwala.—Do you mean raw steel?

Mr. Cameron.—Yes.

Mr. Ginwala.—How much carrying capacity would that represent?

Mr. Cameron.—That I cannot say. I cannot speak from memory about that but I have a record. I will send it to you later.

Mr. Ginwala.—I want to get an idea as to what your maximum capacity for building ships in tonnage is.

Mr. Cameron.—We keep a record of the ships we build every year.

Mr. Ginwala.—I am asking you about the maximum capacity that your works can turn out.

Mr. Cameron.—We have nine building berths.

Mr. Ginwala.—What is the length of the slips?

Mr. Cameron.—We can build a flat up to 180 feet long. We can only take steamers up to 130 feet.

Mr. Ginwala.—That is because of the shortage of berths.

Mr. Cameron.—They are short. Also the depth of water at the end of the slips is not much.

Mr. Ginwala.—What is the biggest tonnage that you can construct?

Mr. Cameron.—About 500.

Mr. Ginwala.—That would apply to steamers?

Mr. Cameron.—Yes.

Mr. Ginwala.—Where are your works situated?

Mr. Cameron.—Situated opposite to the entrance to the Kidderpore Dockyards on the Shalimar side.

Mr. Ginwala.—So far as the process of engineering goes, is there any substantial difference between the processes used in shipbuilding and in other structural work?

Mr. Cameron.—There is.

Mr. Ginwala.—What is the main difference?

Mr. Cameron.—There is more specialised work in structural engineering than there is in shipbuilding.

Mr. Ginwala.—It is of the same kind, is it not?

Mr. Cameron.—Practically the same machinery serves for both.

Mr. Ginwala.—Supposing you had, say for the time being, to go in for other structural work, can you use the same plant?

Mr. Cameron.—Yes.

* But see Statement III.

Mr. Ginwala.—Then, as regards labour, is it also adaptable?

Mr. Cameron.—There would not be any great difficulty in training the labour, but we would require specially trained assistants in that branch of engineering.

Mr. Ginwala.—You don't regard the shipbuilding engineering as a branch of engineering distinct from the ordinary structural work.

Mr. Cameron.—I do, to a certain extent.

President.—What Mr. Ginwala is thinking of is this. Taking the capacity of the Indian labour for what it is, is there any great difficulty in training it to build ships than in training it to make bridges?

Mr. Cameron.—There is no greater difficulty.

President.—They are on the same level?

Mr. Cameron.—Yes.

President.—And the processes are similar though not identical?

Mr. Cameron.—Yes.

Mr. Ginwala.—Take the case of other structural work. There you have to do forging, rivetting, etc. Do you do similar kind of work in shipbuilding?

Mr. Cameron.—Yes.

Mr. Ginwala.—As regards the comparison of costs, is there much difference between the two branches?

Mr. Cameron.—Do you want to know the difference in the cost of labour?

Mr. Ginwala.—I mean the whole cost.

Mr. Cameron.—It would be dearer in the case of boats as there is more furnace work to be done than it would in the case of other structural work.

Mr. Ginwala.—Would it be a very high percentage?

Mr. Cameron.—No.

Mr. Ginwala.—Supposing you got an order for bridgework and you said you wanted Rs. 175 a ton, would you ask for much more if you supplied fabricated parts of a ship?

Mr. Cameron.—No.

Mr. Ginwala.—It would be much about the same.

Mr. Cameron.—Yes.

Mr. Ginwala.—As regards galvanizing, the Irrawaddy Flotilla Company say in the case of their creek steamers of 115′ and upwards they require certain parts to be galvanized. Is there any galvanizing plant in your shop?

Mr. Cameron.—We do not have a galvanizing plant. There is the Indian Galvanizing Company at Howrah. We get all our parts galvanized there.

Mr. Ginwala.—Can they galvanize plates of 50 feet?

Mr. Cameron.—I do not know whether they are equipped to do that.

Mr. Ginwala.—They say that galvanizing has to be done after the parts have been fixed.

Mr. Cameron.—That is so.

Mr. Ginwala.—Supposing you got an order from Burma would you be able to carry it out?

Mr. Cameron.—No. We would have to specially construct those parts required to be galvanized. They would have to be constructed big enough and small enough to fit those parts.

Mr. Ginwala.—Then, it would require alterations in the specifications?

Mr. Cameron.—Very probably it would.

Mr. Ginwala.—Is it an expensive or a difficult process?

Mr. Cameron.—It is an expensive process.

Mr. Ginwala.—But is the plant very expensive?

Mr. Cameron.—I should say no.

Mr. Ginwala.—Then I take it that a substantial proportion of the cost of galvanizing would be represented by the cost involved in the process.

Mr. Cameron.—The process and the spelter required.

Mr. Ginwala.—That, of course, alters the situation a great deal. If the plant itself is very expensive, then you cannot expect a shipbuilder on a small scale to possess that plant, but if the plant is cheap and the process costly, the position is different.

Mr. Cameron.—I have often thought of putting it down here but we do not think that it is worth while doing so because we don't produce the quantity of galvanized sheets required to warrant the putting down of a plant. Once it is put down, you have got to keep the bath going all the time, otherwise you would lose the spelter.

President.—It requires continuous operation?

Mr. Cameron.—Yes.

Mr. Ginwala.—Who are your principal customers?

Mr. Cameron.—We have supplied barges to all the managing agents in Calcutta, *viz.*, Messrs. Macneil and Co., Mackinnon Mackenzie and Co., Bird and Co., Heilgers and Co., Jardine Skinner and Co. and Macleod and Co. We have also supplied even to the India General Navigation Company in years past, and Retriever Flotilla Company which is one of our Associated Companies.

Mr. Ginwala.—Have you ever had a flotilla of your own?

Mr. Cameron.—Turner Morrison's have.

Mr. Ginwala.—Turner Morrison's are the managing agents of the Shalimar Works?

Mr. Cameron.—Yes.

Mr. Ginwala.—You are more or less in the same position as the other Flotilla Companies to some extent, that is to say, you build some craft that you run.

Mr. Cameron.—We build our own launches and boats that we want in connection with our own service. We have a very large ship repairing business which perhaps runs to 50 per cent. of our work.

Mr. Ginwala.—Do you import any?

Mr. Cameron.—No, we don't.

Mr. Ginwala.—Do Turner Morrisons import any?

Mr. Cameron.—No.

Mr. Ginwala.—Can you give us some idea of the kind of ships that are imported?

Mr. Cameron.—Messrs. Shaw Wallace and Co. import a few launches now and again.

Mr. Ginwala.—Are they the kind of launches that cannot be built in this country?

Mr. Cameron.—They can be built in this country. The Port Commissioners have also placed orders for vessels which can be built in this country.

Mr. Ginwala.—Have they done so recently?

Mr. Cameron.—Yes. Last year they imported two light vessels built by Thornycroft.

President.—They were also mentioned by Messrs. Burn and Co. We were told that they had wooden hulls.

Mr. Cameron.—They had teak wood hulls.

President.—They are not so important from our point of view as they would be if they had been steel hulls.

Mr. Cameron.—They are steel hulls sheaved with wood.

Mr. Ginwala.—Could they be built here?

Mr. Cameron.—Yes.

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Mr. Ginwala.—Did you tender for them?

Mr. Cameron.—Yes. The reason for that order going home was that there might be some difficulty in working the timber at the forward and after ends of the vessel.

Mr. Ginwala.—Did they consider them a special type?

Mr. Cameron.—They thought perhaps that firms in Calcutta were not equal to Thornycroft.

Mr. Ginwala.—Do you think that firms in India could have done them?

Mr. Cameron.—I am quite sure of that, as Burn and Co. have already built one vessel similar to these entered.

Mr. Ginwala.—Do you know that the Irrawaddy Flotilla Company have double decks in their creek launches?

Mr. Cameron.—I do.

Mr. Ginwala.—Can you build such launches?

Mr. Cameron.—Yes, except for the galvanizing part of it.

Mr. Ginwala.—Can you give us an idea as to the actual cost of fabricating one ton of steel for shipbuilding? I am only referring to steel. I am not referring to other things?

Mr. Cameron.—How do you want me to analyse the cost for you?

President.—All charges incurred on steel apart from its actual cost.

Mr. Cameron.—That is labour, overhead, etc.

President.—The cost of all the work that you do before it is erected.

Mr. Cameron.—It would be about Rs. 30 a ton.

President.—Does that include overhead?

Mr. Cameron.—Yes.

President.—It is very much lower than any figure we have had from any engineering firm for ordinary fabricated steel.

Mr. Ginwala.—I don't wish you to commit yourself to any opinion because, as the President has just pointed out, it is very much lower than anything we have ever had before from any other company.

Mr. Cameron.—I think I can give you what you want. Probably it would be something like Rs. 125. That takes in labour and charges and a margin of 10 per cent.

Mr. Ginwala.—That represents your all-in cost?

Mr. Cameron.—We have got to add the cost of the steel on to that. That is only fabrication.

Mr. Ginwala.—I take it that in the kind of work that you do you can use all Indian steel except rivets?

Mr. Cameron.—We have used Indian made rivets but we have not had so far any experience of Tata's plates.

Mr. Ginwala.—You require basic steel for your purpose?

Mr. Cameron.—Yes, we can use steel produced in the country.

Mr. Ginwala.—Do you make your own paint?

Mr. Cameron.—We get them from the Shalimar Paint Works.

Mr. Ginwala.—On general grounds is it your opinion that the shipbuilding industry in this country ought to be encouraged?

Mr. Cameron.—Yes.

Mr. Ginwala.—Do you consider it reasonably equipped for that purpose?

Mr. Cameron.—It is up to a certain size.

Mr. Ginwala.—And you think labour is available in reasonable quantities—I mean skilled labour of the kind required.

Mr. Cameron.—Yes.

Mr. Ginwala.—As regards your repair work, do you execute repairs to sea-going ships?

Mr. Cameron.—Yes, deep sea vessels.

Mr. Ginwala.—That part of the engineering you run in connection with your shipbuilding?

Mr. Cameron.—Yes.

Mr. Ginwala.—Is that a very large percentage of your works?

Mr. Cameron.—In normal times it will be about 50 per cent.

Mr. Ginwala.—I take it that the kind of plant that is required for repair work is very much the same as for shipbuilding?

Mr. Cameron.—It is.

Mr. Ginwala.—What is the total quantity of steel that you would use in a year?

Mr. Cameron.—It would be somewhere about 6,000 tons, but I have made a note of this point and will let you know.

Dr. Matthai.—I suppose on the whole there is more competition from foreign importers with regard to steam vessels than with regard to other kind of vessels?

Mr. Cameron.—Yes.

Dr. Matthai.—What is the reason for that?

Mr. Cameron.—Ordinarily, there are no enquiries sent out for other kinds of vessels.

Dr. Matthai.—One of the reasons may be this, that in regard to things like barges and flats, it would not be necessary to make them of the same quality of materials and workmanship and so on, because they are not subject to the same amount of strain as a power-driven vessel. Do you think there is any force in that?

Mr. Cameron.—I think the quality of the labour out here can be compared favourably with the labour at Home.

Dr. Matthai.—Supposing shipbuilding firms in India got all the orders which were available in the country now, do you think it would help the industry out of its present depression? Supposing we gave you protection and you were able to secure every available order in this country, even then would there not be serious depression in the shipbuilding industry?

Mr. Cameron.—It would improve the situation very considerably.

Dr. Matthai.—I was thinking of the answer you gave to the President this morning that, as far as the type of vessels you build are concerned, the question of competition does not arise. Supposing you got protection, the advantage you would get in that way would be in the shape of orders in this country. That advantage is very little. So I take it that your position comes to this. Your industry is passing through a difficult time but that is due not so much to foreign competition but to the fact that the shipbuilding industry is passing through a period of great stress.

Mr. Cameron.—I quite agree.

Dr. Matthai.—Can you give me a rough idea of the total capacity to which you are working now?

Mr. Cameron.—On the whole, the year just concluded has been quite favourable to us, considering the depression in the industry, but actually it was only a small percentage of our total output.

Witness No. 4.

MESSRS. BURN AND COMPANY, LIMITED.

A.—WRITTEN.

Letter dated 19th October 1925.

With reference to your letter No. 518 of the 17th ultimo forwarding your Questionnaire regarding fabricated steel parts of imported ships and other vessels for Inland and Harbour Navigation, we beg to enclose our replies together with five spare copies.

We much regret it has been impossible to obtain prices of imported vessels similar to those we illustrate so that comparative costs could have been made.

We would mention that the Shipbuilding trade in India has been very depressed since 1923 and at no time has our Ship Yard worked at over 20 per cent. of its capacity with the result that any work which has been done has been undertaken below cost price in our effort to retain our labour.

We enclose Silver Photographs* of the craft enumerated in our replies to your Questionnaire.

Please note the answers given under item No. 3 are confidential and are not for publication.†

We shall be pleased to give oral evidence should you desire.

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* Not printed.

† This stipulation was subsequently withdrawn.

Replies to Questionnaire.

(1) Cargo, Towing and Passenger Steamer.	" Prosperous " Type.	...	...	...	...	...	...	...	...	...	...	...
Tugs and Launches	" Barnagore " Type.	...	...	...	...	...	...	...	...	...	...	...
Cargo Boats	Standard 200 Tons.	...	...	Standard 100 Tons.	...	Standard 50 Tons.	...	...	...	...	...	...
Flats	" I. G. " Type	...	...	" B. A. " Type	...	...	...	...	...	...	...	...
(2) " Prosperous " Type	Single Screw Cargo and Passenger Steamer.	...	...	Length O.A. 153' B.P. 145'	Beam 24'-3"	Depth 12' 6"	Rs. 2,49,337	...	...	...	...	...
" Barnagore " Type	Single Screw Service Launch.	...	...	Length O.A. 95' B.P. 90'	Beam 16'-0"	Depth 8' 6"	" 91,709	...	...	...	...	...
Standard 200 tons	...	...	...	Length 100'	Beam 20'	Depth 8'-0"	" 24,177	...	...	...	...	...
Standard 100 tons	...	...	...	Length 75'	Beam 18'	Depth 7'-0"	" 19,959	...	...	...	...	...
Standard 50 tons	...	...	...	Length 52'	Beam 15'	Depth 8'-0"	" 11,041	...	...	...	...	...
" I. G. " Type	Jute Flat	...	...	Length 240'	Beam 35'	Depth 9'-0"	" 1,53,945	...	...	...	...	...
" B. A. " Type	Jute Flat	...	...	Length 200'	Beam 28'	Depth 9'-6"	" 95,030	...	...	...	...	...
(3) " Prosperous " Type	A 16·86%	B 17·87%	C 11·32%	D 17·56%	E 36·39%	...	...	...	...	...	...	...
" Barnagore " Type	A 12·23%	B 43·31%	C 4·81%	D 10·89%	E 28·76%	...	...	...	...	...	...	...

200 Tons . . .	A 31%	B *Nil*	C 6·80%	D 26·10%	E 36·10%	...	..
100 Tons . . .	A 31·3%	B „	C 6%	D 26·70%	E 36%	...	..
50 Tons . . .	A 31·8%	B „	C 6·60%	D 29·20%	E 32·40%	...	...
I. G." Type . .	A 34·9%	B „	C 9·79%	D 20·77%	E 34·54%	...	...
"B. A." Type . .	A 32%	B „	C 10·90%	D 23·22%	E 33·88%	...	...
(4) "Prosperous" Type .	11·5%	...	...	...	...	...	...
"Barnagore" Type .	11·6%	...	...	...	...	...	...
200 Tons . . .	11·6%	...	...	...	...	...	...
100 Tons . . .	11·8%	...	...	...	...	...	...
50 Tons . . .	11·6%	...	...	...	...	...	...
"I. G." Type . .	10·48%	...	...	...	...	...	...
"B. A." Type . .	10·54%	...	...	...	...	...	...

(5) "Prosperous" Type .	"A" Plates	67·62%	"B" Structural Sections.	26·63%	"C" Bars	5·75%	"D" *Nil.*
"Barnagore" Type .	„	66·13%	„	27·42%	„	6·45%	„
200 Tons . . .	„	68·88%	„	24·45%	„	6·67%	„
100 Tons . . .	„	63·21%	„	28·90%	„	7·89%	„
50 Tons . . .	„	71·43%	„	23·81%	„	4·76%	„
"I. G." Type .	„	59·17%		31·38%	„	1·98%	Galvd. sheets 7·47%
"B. A." Type .	„	57·31%	„	31·00%	„	3·50%	Galvd. sheets 8·19%

(6) (*a*) The landed cost o a Twin Set of Marine Machinery 8″ and 16″ × 10″ and Boiler 9′-0″ × 8′-6″ which we imported in 1923 was Rs. 28,000 at an Exchange of 1*s.* $4\frac{1}{8}$*d.* At the current rate of Exchange, *viz.*, 1*s.* $6\frac{5}{8}$*d.* the landed cost in Rupees would be about Rs. 24,870 or say 11 per cent. less.

(*b*) Imported materials and parts received by us at the same time cost Rs. 5,596 at the same Exchange At the current rate of Exchange, *viz*, 1*s.* $6\frac{5}{32}$*d.* the landed cost in Rupees would be about Rupees 5,060 or say 11 per cent. less. We have not imported similar size of Machinery since 1923 and do not know how the prices have varied.

(7) Yes.

(8) No.

(9) Yes. (1) Imposition of protective duty on Steel and Galvanized Sheet.
(2) Rise in exchange affecting Home fabrication costs.
(3) Fall in the price of Steel.

We have taken the "I. G." Type of flat as an example and append our calculations showing the disadvantage since 1923.

Steel Plates	198 Tons.
Angles, etc.	105 „
Galvd. Plates, etc.	25 „
Bars	6·6 „

Herewith a Table showing how we are affected by the new duty.

Items.	Tons.	Present c. i. f. Price Calcutta Ex. at 1*s.* $6\frac{5}{32}$*d.*	Old Duty.	Total.	New Duty.	Total.	Difference.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Steel Plates . . .	198	124 0 0	15 0 0	27,522 0 0	30 0 0	30,492 0 0	2,970 0 0
Angles, etc. . .	105	111 2 0	15 0 0	13,243 0 0	30 0 0	14,818 0 0	1,575 0 0
Galvd. Plates, etc. . .	25	247 0 0	30 0 0	6,925 0 0	45 0 0	7,300 0 0	375 0 0
Bars, etc. . . .	6·6	130 12 0	13 8 0	950 0 0	40 0 0	1,126 0 0	176 0 0
							5,096 0 0

Increase owing to the fall in the price of Plates, i.e., Rs. 2-8 per ton.

Duty 10 per cent.	12	8
C. I. F. Price of Plates at present=£9-7-6 at 1s. 4d. exchange	125	0

Duty, i.e., 10 per cent. on Rs. 150	15	0
C. I. F. Price of Plates in August 1923=£10-16 at 1s. 4d. exchange	165	0

Fall of Material (Plates).

Increase owing to fall in price of Angles, i.e., Rs. 2-8 per ton.

Duty 10 per cent.	12	8
C. I. F. Price of Angles at present=£8-8 at 1s. 4d. exchange	120	0

Duty, i.e., 10 per cent. on Rs. 150	15	0
C. I. F. Price of Angles in August 1923=£10-0-6 at 1s. 4d. exchange	150	0

Fall in Material (Angles and Bars).

Difference we are at a disadvantage of 10 per cent. is put on the finished ship, i.e., Rs. 2-4 per ton.		
10 per cent. Duty	27	12
C. I. F. Price of 22 Gauge Galvanized Plates now=£18-10 at 1s. 4d. exchange	277	8
10 per cent. on Tariff Valuation of Rs. 300 per ton	30	0
C. I. F. Price of 22 Gauge Galvanized Plates in 1923 August=£21 at 1s. 4d. exchange	315	0

Fall in Materials Galvanized Plates.

300·6 Tons of Plates, Angles, and Bars at Rs. 2-8 per ton	774	0
25 Tons of Galvanized Corrugated sheets and plates at Rs. 2-4 per ton	56	4
	830	4

Difference due to the fall in the price of Steel.

As per details below :—

	Rs.
(1) Effect of increase in duty	5,096
(2) Effect of Exchange	3,406
(3) Fall in the price of Steel	830
	9,332

SUMMARY.

SUMMARY—*contd.*

Reduction in cost of Fabrication due to Exchange.

	Rs.
Total Cost of Flat, *i.e.*	1,53,945
Total Fabricated Cost, *i.e.*, 34·54 per cent.	53,173
Less Erection in India	24,500
1*s.* 4*d.* Exchange	28,673
1*s.* 6 $\frac{5}{32}$*d.*	25,267
Difference	3,406

(10) On the 3rd January 1923 we submitted a Tender to the Calcutta Port Commissioners for the supply and delivery afloat Calcutta of Two Composite Light Vessels at an estimated cost of Rs. 2,61,000 only each. This order was placed at Home. You will note this tender was based on Steel materials being received from Britain before the extra duty was imposed on Steel.

The percentage being as follows :—

	Rs.	Per cent.
Unfabricated Steel	42,900	16¼
Machinery	*Nil*	...
Other Imported material	71,646	27½
Other materials locally purchased	59,713	23
Fabrication and Erection	86,741	33¼

On the 13th June 1925 we tendered to the Chief Controller of Stores, Indian Stores Department, Engineering Section, Simla. Tender for Order No. N.-2376 for the supply of 2-Paddle Tugs for service at Sukkur. Our price being Rs. 2,41,807 per Tug delivered complete afloat Sukkur. In letter No. N.-2376, dated Simla, 7th July 1925 we were notified by the Chief Controller of Stores that the order has been placed in England through the Director General of Stores, London. We do not know if our tender was rejected on the question of cost, but no doubt if you so desire this information you could obtain direct from Simla.

(11) We can build Vessels up to 350 ft. long which length practically covers the maximum size of each class required in India.

(12) With good and efficient supervision 5 per cent. to 7 per cent. should cover the wastage.

(13) We do not have any prices for imported fabricated steel for ships.

Statement II.—Letter, dated the 6th January 1926, from Messrs. Burn & Co., Ld., Howrah.

As promised by Mr. Balfour to the President of the Tariff Board we forward you details as requested, photo* of the Steamer "Bhadra," showing Dimensions and Tonnage, also Profile Arrangement* of a Sea-going Cargo Steamer showing Dimensions and Tonnage and which we contemplated building during the war.

Enclosure I.

Paddle Steamer for Lloyds Barrage, Sukkur.

Dimensions—Length O. A. 132′ 0″. B. P. 125′ 0″. Beam 19′ 6″. Depth 6′ 0″.

Registered Gross Tonnage—110 tons.

Total erected price afloat Sukkur—Rs. 2,41,807.

	Rs.
Price f.o.r. Howrah	1,85,947
Freight to Sukkur	10,958
Re-erection, etc., at site	44,902
	2,41,807

Enclosure II.

List of Production from 1912.

Year.	No. of vessels.	Registered Tonnage.
1912	37	7,794
1913	62	7,778
1914	31	7,681
1915	33	1,943
1916, 1917, 1918	178	10,132
1919	36	7,530
1920	26	7,016
1921	22	5,565
1922	28	3,996
1923	12	1,474
1924	3	307
1925	9	2,390

Enclosure III.

Names of Constituents from 1912.

Railways—

Assam-Bengal Railway.
Bengal Nagpur Railway.
Burma Railways.
East Indian Railway.
Eastern Bengal Railway.
Lower Ganges Bridge.

* Not printed.

River Shipping Companies—

Bengal-Assam Steamship Company (Managing Agents, Andrew Yule and Company).

British India Steam Navigation Company (Managing Agents, Mackinnon, Mackenzie and Company).

India General Navigation and Railway Company (Managing Agents, Kilburn and Company).

Rivers Steam Navigation Company (Managing Agents, Macneill and Company).

Gladstone Wyllie and Company.

Fraser and Company.

Binny and Company, Madras.

Gordon, Woodroffe and Company, Madras.

Jute Mills, etc.—

Alliance Jute Mills.

Nuddea Jute Mills.

Gourepore Company, Limited.

Barnagore Jute Mills.

Titaghur Paper Mills.

M. David and Company, Narayanganj.

Port Trust—

Madras.

Public Works Department—

Mysore.

Aligarh.

Calcutta.

Port Office—

Calcutta.

Chittagong.

Madras.

Port Commissioners—

Calcutta.

Oil Companies—

The Standard Oil Company, Ltd., Calcutta.

The Asiatic Petroleum Company, Ltd., Calcutta.

The British Burma Petroleum Company, Ltd., Rangoon.

Other Government Departments—

Pearl and Chank Fisheries, Tuticorin.

Telegraph Stores, Alipore.

Commissioner of Orissa, Cuttack.

Back Bay Reclamation Scheme, Bombay.

Enclosure IV.

Furnaced plates can be galvanized in Calcutta in lengths of from 12 ft. to 15′ 0″.

Enclosure V.

List of Boat or Boats Delivered at Rangoon.

One Paddle Steamer "Bassein" (1905). Dimensions—Length O. A. 195′ 0″. B. P. 190′ 0″. Beam 27′ 0″. Depth 8′ 2″. For Burma Railways.

Three Side Loading Barges (1907). Dimensions—Length 190′ 0″. Beam 37′ 6″. Depth 8′ 0″. For Burma Railways.

One End Loading Barge (1907). Dimensions—Length 125′ 0″. Beam 26′ 0″. Depth 6′ 4½″. For Burma Railways.

Two Landing Stages (1907). Dimensions—Length 120′ 0″. Beam 40′ 0″. Depth 7′ 5″. For Burma Railways.

Two Pontoon Bridges (1907). Dimensions—Length 70′ 0″. Breadth 13′ 0″. Depth 5′ 0″ amidship. For Burma Railways.

Two Approach Girders and Trolley Girders (1907) for Burma Railways.

One Side Loading Barge (1907). Dimensions—Length 190′ 0″. Beam 37′ 6″. Depth 8′. For Burma Railways.

Two Oil Barges (1909). Dimensions—Length 150′. Beam 32′. Depth 6′ 6″. For Messrs. Mower Cotterwell & Co., Rangoon.

Twelve Oil Barges (1909-10). Dimensions—Length 160′. Beam 32′. Depth 8′. For Messrs. Mower Cotterwell & Co., Rangoon.

Two Steel Barges (1910). Dimensions—Length 60′. Beam 20′. Depth 5′. For the Superintending Engineer, Maritime Circle, Rangoon.

One Twin Screw Tunnel Launch "Maiwang" (in loose plates, angles, etc.) in 1910. Dimensions—Length 67′. Beam 13′. Depth 4′. For Messrs. Mower Cotterwell & Co., Rangoon.

One Steel Barge (1910). Dimensions—Length 50′. Beam 10′. Depth 3′ 6″. For Messrs. Mower Cotterwell & Co., Rangoon.

One Steel Pontoon (in loose plates, angles, etc.) in 1910. Dimensions—Length 50′. Beam 15′. Depth 4′. For Mosque Road Jetty, Bassein.

One Twin Screw Steam Launch "Kyar-Wi" (in 1913). Dimensions—Length O. A. 76′. B. P. 72′. Beam 12′. Depth 5′. For the British Burma Petroleum Co., Ld., Rangoon.

One House Boat "Kyar-Wat" in (1913) Dimensions—Length 45′. Beam 10′. Depth 3′ 7″. For British Burma Petroleum Co., Rangoon.

One Steam Passenger and Cargo Steamer "Yengyua" (in 1914). Dimensions—Length O. A. 141′. B. P. 136′. Beam 23′. Depth 8′. For British India Steam Navigation Company, Limited.

One Steel Passenger and Cargo Steamer "Tarotyua" (in 1914). Dimensions—Length O. A. 105′. B. P. 100′. Beam 20′. Depth 8′. For British India Steam Navigation Company, Limited.

Two Transverse Loading Barges (in 1923-24). Dimensions—Length 190′ 0″. Beam 37′ 6″. Depth 8′ 0″. For Burma Railways.

Enclosure VI.

Composite Attended Light Ship for the Commissioners for the Port of Calcutta.

Dimensions—Length B. P. 105′ 0″. Beam 24′. Depth 15′ 0″.
Registered Tonnage 220 tons.

	Rs.
Approximate rate per ton for finished steelwork of a typical I. G. Flat whilst lying on Blocks . . .	325
Approximate rate per ton for above Flat complete afloat and equipped	450

It should be noted that these prices are for plain straight barge work and in the case of power craft these figures would be enhanced anything from 20 per cent. to 35 per cent.

Statement III.—Letter, dated 12th January 1926, from Messrs. Burn & Co., Howrah.

We beg to thank you for your No. 11, dated January 8th, 1926, forwarding copies of the Irrawaddy Flotilla Company's replies to the Board's questionnaire, contents of which we note. We forward herewith general arrangement drawings* of the largest paddle steamers we have actually built and which are typical of river craft.

(1) P. S. "Bassein." Length O. A. 195′ 0″. B. P. 190′ 0″. Beam extreme 46′ 6″. Beam moulded 27′ 0″. Depth 8′ 2″. Draft 4′ 0″.

Registered tonnage 250 tons.

(2) P. S. "Barbara." Length O. A. 175′ 0″. B. P. 170′ 0″. Beam extreme 49′ 0″. Beam moulded 30′ 0″. Depth 8′ 0″. Draft 3′ 6″.

Registered tonnage 245 tons.

2. We were asked to tender for the supply of a paddle steamer for service for the Assam Government but owing to retrenchment the construction was not proceeded with. We herewith enclose the design* for your reference and guidance. The dimensions being—Length O. A. 250′ 0″. B. P. 245′ 0″. Beam extreme 50′ 6″. Beam moulded 30′ 0″. Depth 9′ 0″. Draft 4′ 6″. Registered tonnage 400 tons.

3. We have facilities for constructing the largest craft, the dimensions of which are given in the Irrawaddy replies to your questionnaire, but as you are aware the machinery installations will have to be imported from Britain, likewise the Deck machinery.

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* Not printed.

MESSRS. BURN AND COMPANY, LIMITED.

B.—ORAL.

Evidence of Messrs. J. D. BALFOUR AND J. H. BATES recorded at Calcutta on 4th January 1926.

President.—This question that we have to consider as regards ships and other vessels, has arisen in rather a peculiar way. It was not the intention of the Board in their original enquiry to recommend that the duty should be raised, and they formulated their proposals in such a way that no change in the tariff entry about ships was made. But a ruling has been given by the Central Board of Revenue, the effect of which is that the fabricated steel parts of ships and other vessels are subject to the protective duty of 25 per cent. In a certain sense the onus of proof in this enquiry is on the engineering firms because they did not succeed in satisfying the Board on the last occasion that an increase in the duty was necessary, and if you wish the 25 per cent. duty retained, you will have to satisfy us now. The Board recognize, of course, that the circumstances are not exactly the same as they were in 1923. In various respects the position is different, and particularly in respect of the rate of the rupee sterling exchange which has affected the position materially. You have given certain figures in your answer to question 9. You have given three items in which you consider the circumstances have changed. First of all, you say the effect of the increase in the duty is to increase the cost of the material on the type of vessel you have taken as typical by Rs. 5,096. In the second place, you say the effect of the rise in the exchange is that it has given an advantage to the foreign manufacturer of Rs. 3,406 as compared with what it was in 1923.

Mr. Balfour.—That is correct.

President.—And finally, you say that the fall in the price of steel has made a difference of Rs. 830. That last item puzzled me a good deal at first. I take it what you mean is this. In arriving at your figure of Rs. 830 you compared the 1923 tariff valuation with the new specific rates of duties.

Mr. Balfour.—That is right.

President.—And for that reason you ought to make a further addition because the 10 per cent. duty would now be lower owing to the fall in the price of steel since 1923, so that, strictly speaking, instead of saying a fall in the price of steel, perhaps it would be more correct to say a reduction in the 10 per cent. duty owing to the fall in the price of steel. Is that so?

Mr. Balfour.—Yes.

President.—Taking the cost of the steel in the vessel, as you have given it, as 43,000 and odd rupees—

Mr. Balfour.—We gave it as Rs. 53,000.

President.—That includes the duty. I am talking of the c.i.f. cost without the duty. Taking the cost of the steel as Rs. 43,000, Rs. 5,096 would mean an addition of nearly 12 per cent. to the 10 per cent. duty. The disadvantage of Rs. 3,400 due to the exchange would be another 8 per cent., and the final item is roughly about 2 per cent., so that the total works out to 22 per cent., and if that is added to the 10 per cent. duty, the duty required would be approximately 32 per cent. That is in effect what you are asking the Board to recommend, is it not?

Mr. Balfour.—Yes.

President.—I wanted to make sure that the figures I had worked out correspond with the views you have put forward. There is one other point I

want to get cleared up. In your answer to question 4 which is "What percentage of the cost of the unfabricated steel used in the construction of a vessel is accounted for by the protective duties on unfabricated steel?" you have given your answer for the different types, and they are all in the neighbourhood of 11 per cent. That puzzled me at first because taking the rates of duties as they actually are, the percentages ought to work out higher. I think what you have done is this, your percentage represents not the whole duty, but the difference between the 10 per cent. duty and the specific duty.

Mr. Balfour.—That is so.

President.—As regards compensating protection, *i.e.*, an increase in the duty sufficient to cover the increase in your costs due to the imposition of protective duty on unfabricated steel, as I said at the outset, you have still to satisfy the Board that it is necessary. In our view in the original enquiry you were not able to satisfy us on this point.

Mr. Balfour.—You then turned down our request simply because, you say in your Report, "the component parts of vessels are bulky in proportion to the weight." Our contention is that they are not. They are similar to the ordinary structural steel. They are not any bulkier than structural steel.

Mr. Ginwala.—But you must remember that, if the vessels are imported in sections in the sense in which the Central Board of Revenue have interpreted that phrase, would not the bulk be bigger?

Mr. Balfour.—We have brought a model with us for demonstration, if necessary.

Mr. Ginwala.—My own impression was that ships were either brought out as a whole in the case of the smaller ones, or that the bigger ones were split up into parts. I never thought that you could split it up into joists, bars, flats and things like that.

Mr. Balfour.—From the model we have with us here you can see how we could import fabricated ship materials. You may take it that ships are never imported in sections. You will see how easily any part of a ship of this model, which may be taken as typical, can be taken to pieces. There is nothing about that model that cannot be nested and brought out on ordinary freight rates, that is to say, we would pay on weight and not on bulk, that is not by cubic measure.

President.—We put that question specially to the river steamer companies and I should like to read the answer of the Irrawaddy Flotilla Company. The question was "Are the fabricated steel parts, owing to the shape given to them, more bulky in proportion to their weight than unfabricated material?" The answer given is "Fabricated parts are more bulky and more liable to damage than unfabricated." The next question was "What is the average rate at which sea freight is paid on the imported fabricated steel parts of vessels?" The answer is "£3 per ton." If it is in fact £3 a ton it is a good deal more than the freight on unfabricated steel.

Mr. Balfour.—This model here is practically the section of any paddle boat or 75 per cent. of the boats that are running in Rangoon at the present moment.

Mr. Ginwala.—What is the length of boats of that type?

Mr. Balfour.—The ordinary length of a Rangoon steamer is somewhere about 300 feet.

Mr. Ginwala.—The creek steamers there are about 150 feet in length?

Mr. Balfour.—Yes. As I said, practically 75 per cent. of the paddle boats are represented by this model and there is nothing there that cannot be nested together. Even the bilge plates you can nest, so I fail to see why they should pay £3 per ton when we get our freight at 22*s.* 6*d.*

President.—When their representatives come to give evidence we will ask them what exactly £3 means, but I put that point to you to find out what you have got to say about it. Do you challenge their statement? Do you think the freight could be as high as that?

Mr. Balfour.—I do not.

Mr. Ginwala.—Is it your contention that whether these sections are paid for by measurement or by weight the duty would be more or less the same?

Mr. Balfour.—Fabricated steel parts of vessels can always be imported in such a form that the freight would be paid for by weight and not by measurement, at least a very large percentage of our requirements.

Mr. Ginwala.—If it was imported (say) in five sections, could these five sections be so packed that the freight by measurement would be the same as by weight?

Mr. Balfour.—No.

President.—Your reply to that is that they are never imported in sections?

Mr. Balfour.—No.

Mr. Ginwala.—Even the smaller steamers?

Mr. Balfour.—I have seen some shipped from Glasgow on the deck of steamers, but these are only very small ones, about 60 to 70 feet.

Mr. Ginwala.—In that case would the freight be by measurement or would it be an arbitrary figure?

Mr. Balfour.—An arbitrary figure.

Mr. Ginwala.—It would be as for unpacked cargo?

Mr. Balfour.—I can't say.

President.—At any rate both the river steamer companies and the engineering firms are agreed that the import of ships "in sections" is negligible.

Mr. Balfour.—That is what I think.

President.—It is of some importance to know what the freight on fabricated steel parts of vessels is. I worked it out on the basis of your tonnage. You use 334 tons of steel for the "I. G." type of flat. Taking your freight at 22*s.* 6*d.* which is Rs. 15 at the present rate of exchange, that comes to Rs. 5,019. Allowing for 7 per cent. wastage (you say 5 to 7 per cent. wastage) the weight of the fabricated parts, if the vessel were imported, would be roughly 313 tons.

Mr. Balfour.—That is so.

President.—If that freight rate is correct, it is Rs. 40 a ton which comes to Rs. 12,500. So that if the figures are correct, the Indian firms have an advantage of Rs. 7,500 on the freight.

Mr. Balfour.—I can't imagine any firm importing fabricated ships and having to pay any excess freight on practically the whole of the plates and angles for the hull.

President.—I am not an expert in these matters and all I can do is to put it to you.

Mr. Balfour.—Here is a model of a typical steamer or flat. These plates are actually flat on the bottom, the sides and the deck for 75 per cent. of the length. The only plates which are not straight out of that 75 per cent. of the hull, are bilge plates, and these can also be nested, so that they would actually have to pay on weight and not on bulk.

President.—The point is, it is no help to us to say that the thing ought to be so. Can you think of any way in which you can help us by a definite statement to the contrary?

Mr. Balfour.—If we bundle the plates or have them sent loose for the manufacture of ordinary structural steel and pay only 22*s.* 6*d.*, why should importers of ships have to pay anything in excess of that?

President.—I don't know why, but in this world there are a good many things which I don't understand, especially in connection with freight matters! I quite see your point that the actual form in which fabricated plates will come out is such that they take up no more room than unfabricated steel. We will put that point to the steamer companies, but can you suggest

any means by which the Board can satisfy themselves as to what the rate actually is?

Mr. Balfour.—We are not importers of ships.

Mr. Ginwala.—We may enquire of the Port Commissioners and the Sukkur Barrage people who may be importing launches.

President.—We asked the India General Navigation Company but they were unable to give any reply. What they say is that they have not imported any since 1923. What they say is "Not having imported any fabricated materials of recent years we are not in a position to say, and as fabricated materials and machinery are often included in the same shipping documents, it would be difficult to apportion them to particular details." There is a possible explanation in the case of the Irrawaddy Flotilla Company. If the freight of £3 a ton is the freight rate for fabricated steel and machinery, that is a possibility.

Mr. Balfour.—£3 is not the rate for fabricated steel, it may be for fabricated ships, but not for fabricated steel. I don't see why they should make a difference between fabricated steel and fabricated ship steel.

President.—I understand your position and we will put this point to the Irrawaddy Flotilla Company when their representatives come to give evidence. As I said, it is an important point to get clear about, because if their rate is correct the difference is considerable.

Mr. Balfour.—We don't agree with them.

President.—There is another point that arises as regards this question of compensating protection. When you erect, let us say, a flat it goes straight off to where it is going to be used. Take the case of a vessel for the Ganges or the Brahmaputra. I take it that the British manufacturer has got to erect that vessel in his yard and has got to dismantle it again and send it out. In that respect the foreign manufacturer is handicapped by the fact that the same work has to be done twice over, that is to say, the purchaser out here has got to erect it again, whereas in the case of a ship erected by you, you do the thing once for all.

Mr. Balfour.—Quite so.

President.—In that respect there is a difference between the construction of ships and other fabricated steel works.

Mr. Balfour.—That is not a very big item, the actual erecting of the ship. Where the great labour comes in is in the rivetting.

Mr. Ginwala.—That is part of the erection, is it not?

Mr. Balfour.—Yes, but what the President said was that there are two erections.

President.—The British firm would do a certain amount of rivetting in his own work?

Mr. Bates.—They would merely bolt the things together. They might do a certain amount of rivetting round the bottom of the frame, but they would not do the actual rivetting. That kind of erection is done by unskilled labour and the skilled labour comes in in rivetting which comes later on.

Mr. Ginwala.—Then your point is that the bulk of the rivetting has to be done here.

Mr. Balfour.—At least 80 per cent. has to be done.

President.—Take the case of these tugs that you tendered for Sukkur Barrage. In that case, I take it, you would have been in the same position as the British firms.

Mr. Balfour.—Yes.

President.—Could you work out at all on the figures of that tender what the difference in cost would have been if it had been used in the Hooghly river instead of being sent to the Indus?

Mr. Balfour.—I dare say we could.

President.—If you could it would be useful, because one of our difficulties in dealing with the case last time was that it did seem clear from Mr. Cochran's evidence that the engineering firms were more favourably situated as regards ships than as regards the other works they were doing. Their position was stronger. That was quite clear from his evidence. What was not clear was precisely what the reason was. It would be useful if we could arrive at something like definite figures as to what this double erection means as an addition to the cost.

Mr. Balfour.—We will give you our estimated cost for the erection and rivetting at Sukkur which we have in our estimates.*

President.—We recognise that it is only an estimate. I take it you took into account the work that you would have to do at Sukkur.

Mr. Balfour.—Yes.

President.—Probably you had that separated now.

Mr. Balfour.—Exactly.

President.—Would you send the launch to Sukkur in the same condition as it would be sent from England?

Mr. Balfour.—Exactly, similar to what would be imported from England.

President.—To pass on to the second item the effect of the exchange and the difference that it makes to you, that is also in answer to question 9, I think You give the total cost of fabrication and erection as Rs. 53,000.

Mr. Balfour.—That is right.

President.—And then you deduct erection in India Rs. 24,500 which leaves Rs. 28,673. Then in effect what you do is you translate it into pounds at 1*s.* 4*d.* and then translate it into rupees at 1*s.* 6$\frac{5}{32}$*d.* My first comment is that 1*s.* 6*d.* is a better rate, it is unnecessary to bother about the odd five thirty-seconds. However, that is a very small point. The main point is this, what in effect you do is you assume that the British cost of fabrication is identical with yours.

Mr. Balfour.—Yes.

President.—That, of course, we don't know.

Mr. Balfour.—We are in the same difficulty.

President.—It is a little difficult to see whether this is a reasonable basis on which to work. Could you tell us how you arrived at these figures and how you divided it up between fabrication and erection?

Mr. Balfour.—From our own actual cost.

Presidetn.—What would you include under erection as opposed to fabrication?

Mr. Balfour.—Erection in India means erecting the boat, rivetting, launching and handing it over.

President.—Would not the total figure of Rs. 53,000 include the cost of putting the thing together? Apart from steel there are other materials that go into it. There is a certain amount of wood work to be done.

Mr. Balfour.—Yes. That is the total erection cost. It comes out in pieces, not in sections, fabricated. We erect the pieces, rivet them, do everything necessary, including wood work and fittings—launching and handing it over.

President.—The point is this. As steel is not the only material used in the construction of the vessel, your fabrication and erection costs will include work which is done on other materials as well as on steel.

Mr. Balfour—Yes.

President.—That is hardly relevant to the question of the duty on steel parts. Do you see what I mean?

Mr, Balfour.—The example we have taken is a flat. There is very little wood work in it.

* Statement II, Enclosure I.

President.—Let us see what figures you have given for that. You have given for the I. G. flat the other imported materials as 9·79 per cent. and the locally purchased material as 20·77 per cent. The two together cost almost as much as steel.

Mr. Balfour—Yes.

President.—31 and 34 roughly.

Mr. Balfour.—You were speaking now on the actual cost of erection in India. These items "other materials" consist of anchors, pumps, chains, wire ropes and items like that. They are simply put on the boat and there is no work to be done.

President.—Anchors would not require any work to be done, but I take it the pump has got to be rivetted down.

Mr. Balfour.—They are portable pumps, one pump for each hull.

President.—Then there is not much work to be done.

Mr. Balfour.—Not on the other imported materials, just the handling of them.

President.—What about the locally purchased materials?

Mr. Balfour.—These consist of wood, fittings such as capstans, bollards, fairleads, paint, etc.

President.—In your percentages there would be a fair amount of work done on such materials, would there not?

Mr. Balfour.—Yes, we make our own capstans, in fact all castings, and in addition the whole of the wood work.

President.—Under which head would you put the cost of the castings? Would it be under local purchase or fabrication? I presume that the casting of the iron would be included in the cost of materials, and only the work done after included in the fabrication cost.

Mr. Balfour—Yes.

President.—And how about the wood?

Mr. Balfour.—The timber will be included in this, but labour will be under erection.

President.—Any work that you did on the timber in your works would be included under fabrication?

Mr. Balfour—Yes.

President.—I notice you give a round figure of Rs. 24,500 as the cost of erection. Let me put it this way. Which figure did you arrive at first, the cost of fabrication or the cost of erection?

Mr. Balfour.—We got the fabrication from our actual costs. The other figure is estimated.

President.—Which do you mean by the other figure?

Mr. Balfour.—Less erection in India is the real figure.

President.—In arriving at your figure for fabrication, did you take into account only the work done on steel?

Mr. Balfour.—On the hull and the wood work and the fitting of the capstans, etc., on the ship.

President.—Is that fabrication or erection?

Mr. Balfour.—That is fabrication.

President.—I am afraid we are getting into cross purposes. You have got a total figure of Rs. 53,000 for fabrication and erection and then it is divided into two parts, the cost of erection in India as Rs. 24,500 and the balance which is the cost of fabrication, assumed to be the same for the British and the Indian manufacturer, which is Rs. 28,000 and odd. What I am trying to get at is did you get both these figures by an examination of your books, or did you arrive at one of them by an examination of your books and then by deducting it from the total determine the other.

Mr. Balfour.—We arrived at the total fabricated cost of Rs. 53,000 from our actual cost sheets. The other item "erection in India" is an estimate. We have estimated this figure of Rs. 24,500 on the basis of the ships being sent out with the holes completely drilled and frames completely rivetted. It is like this. If any of these Companies came along and said we want you to erect a boat which has been imported from Home, what will he your cost, we would quote Rs. 24,500.

President.—That is exactly what I wanted to know, not how you got the total figure, but how you divided it between fabrication and erection.

Mr. Balfour.—That would be our quoted figure for the erection of a 200 ft. flat.

Mr. Ginwala.—That would be the same as you do in the case of wagons in comparing charges for erection.

Mr. Balfour—Yes.

President.—There is just one point which occurred to me in connection with the locally purchased material. The division of the percentages given by the different firms shows rather surprising variations, particularly as between Calcutta and Rangoon. I think the variations were so wide that it looked as if the question had been differently interpreted by different firms, but I take it there is no danger of the Jamshedpur steel getting into the locally purchased material.

Mr. Balfour.—Steel is a different item.

President.—Quite. Your locally purchased material seems to be higher in some cases than some of the other firms.

Mr. Balfour.—We can give you a detailed figure just what exactly we included.

President.—I want to be quite sure that any steel you get from Jamshedpur goes to the unfabricated steel and not to the locally purchased materials.

Mr. Balfour.—That is unfabricated. That figure varies greatly with the specification.

President.—In the case of flats, for what purposes do you use the galvanized sheet?

Mr. Balfour.—For the roof and the sides of the superstructure.

President.—The reason why I ask you is this that the Irrawaddy Flotilla Company apparently use a certain amount of galvanized sheet for a different reason. What they say is this:

> "The waters of the rivers of Burma, and more especially of the Delta, necessitate the use of galvanized material in the construction of our vessels. This in itself prevents us from building all our larger types (say above 100 feet) in Burma, since we have no means of galvanizing plates and angles after they have been furnaced and shaped."

That does not occur so far as you are concerned.

Mr. Balfour.—Not in Bengal.

President.—I gather from your answer to question 5 that in a flat, about 60 per cent. of the material consists of plates, 30 per cent. of structural sections and the balance is mostly galvanized sheet and a small quantity of bars.

Mr. Balfour.—Yes.

President.—You have told us about the two cases in which you tried to secure an order and were not successful in doing so. One of them was in January 1923, that is before the imposition of the new duties, and that was a tender to the Calcutta Port Commissioners for the supply and delivery afloat Calcutta of two Composite Light Vessels. I notice in this case the unfabricated steel formed a comparatively small proportion of the cost.

Mr. Balfour.—Yes.

President.—And therefore the inference rather seems to be that it was not the question of the cost of steel that affected your position as regards that tender. The cost of the other materials was more than three times the cost of the steel.

Mr. Balfour.—Teakwood hull and steel frame work.

President.—It is rather an unusual type of vessel.

Mr. Balfour.—It is only a particular case.

President.—Can that particular case be regarded as a typical one?

Mr. Balfour.—Another reason why we brought it to your notice was that we were disappointed when we didn't get that order.

President.—Is it a type of vessel which is much in use?

Mr. Balfour.—It is extremely difficult to get comparative costs. We thought we might have had comparative costs for paddle steamers for the Sukkur Barrage. The prices are generally quoted in the *Indian Trade Journal*, but so far I have not seen them.

President.—My point is this. Assuming that you have certain advantages over the foreign manufacturer as regards vessels for use in Bengal and Assam owing to the double cost of erection and possibly owing to the higher freight on the materials, assuming that you have these advantages, you will lose them both as regards the construction of vessels for use on the Indus, because you have got to incur double cost of erection and also you have got to pay the freight to Karachi on the parts.

Mr. Balfour.—What we are anxious to have is this. We have successfully competed on the Indus in the manufacture of a large wagon ferry service for the North Western Railway.

President.—When was that?

Mr. Balfour.—In 1911. We completed the scheme in 1912. The contract consisted of one paddle boat, two landing stages, three wagon barges. We have also built ferry steamers for Assam.

President.—In the case of Assam those steamers would go under their own steam.

Mr. Balfour.—Yes.

President.—As far as Assam is concerned, your position is the same as in Bengal.

Mr. Balfour.—The point is we have successfully competed before the imposition of the extra duty, or rather before the war, on the Indus.

President.—The inference I should be inclined to draw from that is before the war you must have had a very considerable advantage so far as Assam and Bengal were concerned, if you could compete on the Indus. Let us take the ordinary Jamshedpur steel. It can't compete at Karachi. It can't get to Karachi at all.

Mr. Balfour.—We are very anxious to be left in the same position as we were then in 1911 and 1912.

Mr. Ginwala.—Who has been left in the same position as he was in 1911 and 1912?

President.—We have not protected steel sufficiently to enable it to compete successfully in Karachi and Bombay. Therefore to propose that fabricated steel should be protected on a scale sufficiently high to conquer markets, which the unfabricated steel cannot capture, would be going rather further than we have gone so far.

Mr. Balfour.—We don't want any of our advantages taken away from us.

President.—I dare say you don't. We have got to recognise that.

Mr. Ginwala.—If that advantage had been taken away by some recommendation made by the Tariff Board and accepted by the Government of India; then there might be something in your claim, but if you had some advantage with which the Board or the present policy of the Government had nothing to do, how do you support your claim?

President.—Your point would be this, if there were no protection, you would have been able to get the order for the tugs. I think it would be useful to find out from the Stores Department what the difference was between your tender and the successful tender. The point is we have already asked you to let us have, if you can, the additional cost due to double erection and also the freight on materials from Calcutta to Karachi.

Mr. Balfour.—There is also a point here. We understand that the duty is refunded by the Government of India to the Sukkur Barrage. The import duties are refunded and recredited to the various schemes.

President.—It is refunded to the Local Government. The Finance Department of the Local Government do not refund the amount to the Irrigation Department. The last I heard on this question was Sir Basil Blackett's speech at the time of the last Budget debate. What he said was this that in order not to disturb the question of the provincial contributions, the Local Government received from the Government of India at the end of the year a refund of the duty paid on imported stores. But there was no question of refund to individual departments. Sir Basil added that in view of the fact that a part of the provincial contributions was being remitted he intended to discuss with the Local Governments the question whether the refund ought not now to stop. What the result of this discussion may have been, I don't know. I don't think there has been any announcement.

Mr. Balfour.—Don't you think that the officers when comparing an Indian tender with a tender abroad, will naturally place the order abroad in preference to placing it in India knowing full well that their Province will get the benefit of the refund of the duty?

President.—I should be very reluctant to believe that.

Mr. Ginwala.—When a scheme is financed by the Local Government itself, then your contention is sound. When the scheme is not financed by the Local Government itself and, if the Local Government retains the money, how does that scheme benefit by a refund?

Mr. Balfour.—That is so. I made a reference to the Sukkur Barrage.

President.—The order is perfectly explicit that the duty should be taken into account when comparing costs and there is no question about that.

Mr. Balfour.—Still there is always the possibility in a case like that of officers knowing well that the duty is to be refunded to the Province on accepting a tender for stores from abroad.

President.—I doubt it very much. As I say, the Irrigation Department would not get it back. The Finance Department will hang up to it. Whatever the merits of the question may be, it is a little off the point. At any rate you are not asking us to put on a protective duty on that account.

Mr. Balfour.—The point is that the Provincial Governments send their special officers home to purchase their stores and it is quite possible that the Indian manufacturers do not receive the enquiry.

President.—I don't quite see how you can raise a general question of this kind in this enquiry, which is only subsidiary branch of the steel enquiry. I don't think it is worth pursuing further in this connection. I want to draw your attention to the evidence we received from the Irrawaddy Flotilla Company. In answer to question 9 of the questionnaire to the Engineering firms, they say:

> "Even allowing for the recent drop in imported steel prices, it is still profitable to build in India such vessels as can be built there. Other considerations than the price of steel are in operation. This Company would still continue to build its smaller vessels in Rangoon if the present duty on imported vessels were removed."

In answer to question 10 they say:

> "We can, however, instance a recent order from an outside firm which we received, against keen home competition, and in this case we afterwards discovered that the purchasers, when considering the Home quotations, had all along (under a misapprehension as to the meaning of the words 'vessels in sections' in the Tariff Schedule) been estimating that they could import the Home vessel at 10 per cent. We may, therefore, say that we got this order as against the former rates of duty."

We will have to find out more about these things from their representatives when they come to give their evidence, but I thought I had better mention them to you. It is additional evidence that in the construction of ships and steamers firms in India have advantages which they have not got in the case of fabricated steel generally.

Mr. Balfour.—If the difference is very small between the imported price and the price at which we can manufacture in India, the firms here who use ships will send home their orders. Each of them have yards and can build ships or re-erect ships. They have to maintain these yards for the running of their fleet.

President.—I don't quite follow.

Mr. Balfour.—These companies have yards which they have to maintain for the maintenance of their fleet. If the difference in price is so small between the imported article and the article manufactured in India, they will place the order at home because they will be able to cover certain amount of charges by erecting imported ships in their yards, *i.e.*, instead of the whole overhead charges being distributed over the maintenance of their fleet, it would be distributed over the maintenance of the fleet *plus* the erection of ships out here.

President.—I don't quite see that this has any bearing on the Irrawaddy Flotilla Company. In this particular instance which they have given, they built this vessel in their yards at Rangoon for an outside firm.

Mr. Balfour.—Quite so, but if the difference in price is so small, naturally they will go home for these vessels.

President.—Who will go home?

Mr. Balfour.—The companies who use ships.

President.—In this case, the purchaser is not the Irrawaddy Flotilla Company. They are the sellers.

Mr. Balfour.—Yes, that is only a single instance. I am pointing out here what may occur if all our advantages are taken away from us.

President.—But surely you don't contemplate that vessels would be made in Calcutta for service in Burma.

Mr. Balfour.—We often do.

President.—In our original enquiry Mr. Cochran said that your firm never had an order from the Irrawaddy Flotilla Company and never expected to get one.

Mr. Balfour.—That is from the Irrawaddy Flotilla Company.

President.—Supposing the duty on imported vessels were raised to a figure which made it definitely cheaper, very much cheaper to build in India than to import, it is probable that the Irrawaddy Flotilla Company would get the orders for the steamers required for use in Burma. They have a distinct advantage over you for they have not got to meet the cost of double erection.

Mr. Balfour.—When we build ships for use in Burma, they are towed down. We don't re-erect them in Rangoon or anywhere else. We can always tow down ships for four months in a year.

President.—When did you last build a ship for use in Burma?

Mr. Balfour.—January last year.

Mr. Bates.—Two for the Burma Railways.

President.—Apart from the Irrawaddy Flotilla Company there is not a very big demand for ships in Burma, is there?

Mr. Balfour.—No.

President.—There is another point which has been brought out by the India General Navigation and Railway Company. They say "There are many other factors besides price to be taken into account. There are, for example, designs, supply of materials, quality of material and workmanship, time of delivery and capacity of the dockyard to deal with the work.' Also as most of our vessels are repeats of types already in use, the previous builders are not only familiar with our requirements but also possess the patterns, jigs and dies for the various parts." Similarly the Irrawaddy Flotilla Company give very much the same kind of reply. They say "Price is not the only consideration. Our home builders are entirely familiar with the construction of all the types of vessels we use and with all our requirements in connection with the detail thereof. Apart from minor improvements, orders for new craft almost always follow the lines of vessels previously built of which the builders possess the plans and templates. It would consequently involve both trouble and expense to order vessels elsewhere." That is a point which cuts both ways, as far as I can see. If a firm has got into the habit of placing an order in India, it will require a considerable change in price to induce it to place the order elsewhere, and, *vice versâ*, if a firm has got into the habit of placing its orders in England it requires a bit of shake up before it will change. Therefore, as I say, the argument cuts both ways. But I mentioned it in case you had anything to tell us on that question as to how far it was a question of price and how far other considerations played.

Mr. Balfour.—It greatly depends on how much they do in their own dockyards.

President.—I think that the India General Navigation Company also construct ships themselves.

Mr. Balfour.—Yes.

President.—That being so, they would construct themselves. Supposing the duty were raised, they would not buy from you, they would almost certainly extend their yards to some extent and construct ships themselves.

Mr. Balfour.—Not necessarily, if they could get them cheaper from us.

President.—That is precisely the point. They would be getting more work out of their yard.

Mr. Balfour.—Because their yard is full.

President.—For four years they have not bought at all from you I think.

Mr. Balfour.—We built three for them last year.

President.—In 1924?

Mr. Balfour.—No, in 1925.

President.—What class of vessels were they?

Mr. Balfour.—I. G. Flats. The order was mostly given to us on delivery.

President.—What do you mean?

Mr. Balfour.—We took the order and promised to deliver them in time for the jute season.

Mr. Bates.—We delivered two on the 30th August and one on the 15th September.

President.—Here is an order which you got in spite of the protective duty?

Mr. Balfour.—They could not have got them from England and erected them in time.

President.—We shall ask the India General Navigation Company about this particular order and the circumstances which made it advantageous to place the order in India. You think that they did not have time to place the

order at home and bring them out here and that was the reason why you got them.

Mr. Balfour.—Yes. If they missed the jute season there was no necessity for the flats that season. For the next jute season they would order now. We ourselves could not have done it if we had not the assistance of Tata's.

President.—That points to the advantage of having the steel industry in India.

Mr. Balfour.—It is a great advantage.

Mr. Ginwala.—Since we reported last, the position has altered a bit in this sense that we must take this application of yours as more or less being opposed to the removal of the duty. For that reason we ought to satisfy ourselves whether you are sufficiently well equipped to deserve such assistance. That is one point. Secondly, whatever scheme we may propose we must eliminate those kinds of manufacture or those kinds of ships which cannot be built in this country. Do you understand what I mean? It is no good saying that all ships must have a tariff of 25 per cent. *ad valorem*, even if they cannot be manufactured in India. It is only with reference to these two points that I want to put you some questions. What is your experience of ship-building? How many years have you been building ships?

Mr. Balfour.—At least 60 years—probably more.

Mr. Ginwala.—What is the full capacity of your works, supposing you got all the orders that you could execute?

Mr. Balfour.—About 3 to 4 thousand tons.

Mr. Ginwala.—Of course much would depend on the type of boat to be built. We will take the two extremes. If the construction was of a simple nature like barges or flats, would it run up to 8,000 tons?

Mr. Balfour.—Yes.

Mr. Ginwala.—Supposing the whole construction was of an intricate nature?

Mr. Balfour.—About 3 to 4 thousand tons. Of course, much would depend on the size of vessels.

Mr. Ginwala.—Have you seen the list of the kinds of craft which the Irrawaddy Flotilla Company require?

Mr. Balfour.—No.

Mr. Ginwala.—In your statement at the end you say that you could manufacture a ship up to a length of 350 feet. Then, you give the different classes of steamers that you could build. Look at the types given by the Irrawaddy Flotilla Company on page 2 of their Statement No. I. There you will find that they have separated them into two classes, those which can be built in India and those which they build in Europe and which they maintain they cannot build in India.

Mr. Balfour.—We don't agree with what they have stated.

Mr. Ginwala.—They say "all vessels of classes 1, 2, 3, 4 and 6 (of dimensions as shewn in Answer L) could not be satisfactorily constructed in India." The length of class 3 vessel is 185 feet.

Mr. Balfour.—We have built even bigger than that. We have built ships of about the same size as class No. 2.

Mr. Ginwala.—What I want to know is whether you can build, supposing you get an order, this particular type of boat that they say cannot be conveniently built in India.

Mr. Balfour.—We have actually manufactured ships of that size.

Mr. Ginwala.—They say that the dimensions of their mail steamers are 326′×46′×11′. They have double decks and their gross tonnage is 1,700 tons. Could you run to anything as big as that?

Mr. Balfour.—Yes, but we would have to import the machinery.

Mr. Ginwala.—I am talking of the hull. You can run up to as much as 1,700 tons.

Mr. Balfour.—Yes. We offered to build for Government during the war.

Mr. Ginwala.—I am coming to that. What is the size of the largest ship that you can build? Give me in tonnage.

Mr. Bates.—3,000 tons dead weight.

Mr. Ginwala.—Have you built any?

Mr. Balfour.—No.

Mr. Ginwala.—You say that you can build up to 3,000 tons.

Mr. Balfour.—Yes.

Mr. Ginwala.—What will be the length of that vessel?

Mr. Balfour.—About 300 feet.

Mr. Ginwala.—Do I understand that your yard is equipped to build such big ships or is it only that you think that you can build them?

Mr. Balfour.—We have the necessary equipment to do that.

Mr. Ginwala.—Can you give us your actual figures of production?

Mr. Balfour.—We will send them later.* But there has not been very much for the last two years.

Mr. Ginwala.—Will you give us your figures of production for the last five or ten years and the largest output you reached in any particular year, so that we may get an idea of your capacity which has been proved by actual figures.

Mr. Balfour.—Yes.*

Mr. Ginwala.—Is the ship of 3,000 tons you were speaking of, a sea going ship?

Mr. Bates.—Yes.

Mr. Ginwala.—Have you built any sea going ship?

Mr. Balfour.—Not of that size.

Mr. Ginwala.—Any size?

Mr. Balfour.—Yes, we have built a sea going vessel whose length is 205′.

Mr. Ginwala.—What is the gross tonnage?

Mr. Balfour.—About 500 tons.

Mr. Ginwala.—Is the 'Prosperous' the smallest type of sea-going ship?

Mr. Balfour.—We designed and built the whole thing here.

President.—There is this point to be remembered. You cannot put protective duties on sea going vessels.

Mr. Ginwala.—The question we are considering for the moment is: whether the building of ships, sea going or other, should be encouraged in India.

President.—The two things stand on a different basis. The means taken to secure the development of building of sea going ships in India could not be a protective duty which would be useless for that purpose.

Mr. Ginwala.—The question of protecting sea going vessels may have to be dealt with differently, but the point I am trying to satisfy myself is, supposing we wish to build sea going ships, can you build them in your yards as you are equipped just now?

Mr. Balfour.—Up to a point.

Mr. Ginwala.—You can build sea going ships?

Mr. Balfour.—Yes.

Mr. Ginwala.—Have you built any?

Mr. Balfour.—Yes, S.S. 'Bhadra.'

Mr. Ginwala.—When was that?

Mr. Balfour.—In 1920.

President.—How does that compare with S.S. 'Prosperous'?

* Statement II, Enclosure II.

Mr. Bates.—It is larger, being 250′ long. As regards tonnage, it is about 500 tons. The original 'Bhadra' was imported by one of the Steamer Companies. She was taken away from the river during the war and put on patrol work in the Gulf. It was found afterwards the machinery and boiler were in good condition and these were installed in a new hull which we built.

Mr. Ginwala.—I don't want to go into much detail. But what is the difference briefly between a sea going ship and a river going ship?

Mr. Bates.—The proportions are very different. In the case of ocean going ships we have to follow Lloyds or Classification Societies Rules, whereas in the case of river going vessels we follow the Board of Trade's Rules which are applicable to river craft, the chief difference between the two being that in the case of sea going ships the depth is greater.

Mr. Ginwala.—Is that from the point of view of safety?

Mr. Bates.—Yes, because of the design the vessel will be stiffer in that case. Moreover river crafts are much more lightly constructed.

Mr. Ginwala.—Take the case of a Paddle Steamer.

Mr. Bates.—The depth may be 11′, whereas in the other case it may be 17′ for a boat of similar tonnage.

Mr. Ginwala.—That is the main difference.

Mr. Bates.—Yes, as regards structure.

Mr. Ginwala.—Will you let us have your production of the different types?

Mr. Balfour.—Yes.*

Mr. Ginwala.—At present who are your principal customers?

Mr. Balfour.—We will send you a list.†

Mr. Ginwala.—Will you mention in that list the kind of people who buy these?

Mr. Balfour.—Yes.†

Mr. Ginwala.—Can you give us any idea of the type of ship that is actually being imported into the country?

Mr. Balfour.—We don't know of any being imported at all at the present time.

Mr. Ginwala.—Except that the Irrawaddy Flotilla Company say that they import these creek steamers. But of course they have not imported any recently. They make one or two points in connection with these boats they import. They say that they do not want to go beyond 100 feet, so far as passenger steamers are concerned, though in respect of barges and flats they go up to 225 feet. The next point they make is that they have no means of galvanizing the plates and angles after they have been furnaced and shaped. Is it a very difficult process?

Mr. Balfour.—Not difficult.

Mr. Ginwala.—Does a galvanizing plant require a very large outlay?

President.—In connection with our enquiry about the duty on spelter the conclusion we came to, or rather the evidence that was put before us, was that there was not a very large amount of work even in Calcutta to be done by the galvanizing firms, and therefore, if it is not possible in Calcutta, it is very doubtful whether it would pay to put up galvanizing works at Rangoon.

Mr. Bates.—Take a creek steamer; there would be about 35 plates to be galvanized after furnacing and shaping.

Mr. Ginwala.—You have got to keep a plant for the purpose?

Mr. Bates.—Yes.

Mr. Ginwala.—Would it be worth anybody's while to put up a galvanizing plant? Supposing you got an order from Burma in which it is necessary that a certain proportion of the plates should be galvanized, what would you

* Statement II, Enclosure II.
† *Ibid*, Enclosure III.

do? What the Irrawaddy Flotilla say is that the galvanizing has to be done after the plates have been furnaced and shaped. Could you do that here?

Mr. Balfour.—We would have to send them to one of the galvanizing companies here.

President.—Is this galvanizing done here?

Mr. Balfour.—Yes.

President.—Here in Calcutta?

Mr. Balfour.—I think so.

Mr. Ginwala.—If it is established that the galvanizing has to be done after furnacing and shaping, that is an essential part of the process and that it cannot be performed in this country, the objection may be fatal to your case from one point of view.*

Mr. Bates.—Really speaking, a galvanized ship is a speciality in itself. None of the companies here use galvanized plates.

Mr. Ginwala.—But the Irrawaddy Flotilla Company say it is essential for their purpose, because the water there is brackish.

Mr. Bates.—We have built ships for Burma and we have not been asked to do the galvanizing. This is all a question of lightness. Their boats carry a certain amount of load in a certain draft, which means the materials used in construction are light. In the case of galvanized plates, the thickness of the plate may be only quarter of an inch or 5/16 inch, whereas in the case of ordinary plate the thickness must be greater to have the same life.

Mr. Ginwala.—What would you suggest in their case? It is a very important point. What they say is this. "The waters of the rivers of Burma and especially of the Delta necessitate the use of galvanized material in the construction of our vessels. This in itself prevents us from building all our larger types (say above 100 feet) in Burma, since we have no means of galvanizing plates and angles after they have been furnaced and shaped." You have got to meet this objection.

President.—Apparently, their smaller vessels do not require to be galvanized.

Mr. Balfour.—We have not very much experience of the working of ships in Burma.

Mr. Ginwala.—You cannot use galvanized plates to start with, because in furnacing and shaping they will be spoiled, so that the galvanizing must be done after they are shaped.

Mr. Bates.—We built three or four barges for Burma and they are still working. We delivered the barges to the Burma Railways in 1923.

Mr. Ginwala.—We do not know where these launches go. However, you may think it over and let us have an answer.

Mr. Balfour.—We will.†

Mr. Ginwala.—Have you any idea of the cost of a galvanizing plant?

Mr. Balfour.—I am afraid I have not.

Mr. Ginwala.—Your contention, I take it, is that though it may be desirable to galvanize some of the plates, in fact you have supplied launches to Burma which were not galvanized?

Mr. Balfour.—That is so.

Mr. Ginwala.—With regard to your answer to question 2, you have given the prices for various types. Are these actual prices in every case?

Mr. Balfour.—Most of them are actuals.

President.—Where they were actual before the imposition of the duties, have you taken account of the duties?

Mr. Balfour.—We have. These are the present day prices.

* Statement II, Enclosure IV.
† Statement II, Enclosure V.

Mr. Ginwala.—The 'Prosperous' was built some years ago. You have given the price of that as Rs. 2,99,337. Is that the present day price?

Mr. Balfour.—That is the present day price. That is what we would quote if anyone asked us to build it to-day. We have quoted for all the crafts during last year with the exception of the 'Prosperous'.

Mr. Ginwala.—The erection of a ship is divided under five headings in your answer to question 3. With regard to the unfabricated steel used subject to protective duties, is there any steel used in the erection of these ships which is of a kind not produced in India?

Mr. Balfour.—No, unless the galvanized plates are. Tata's did not manufacture galvanized plates before the imposition of the new duties but I think they are making them now. There is no special steel; it is all British standard specification. There is no question of "B" "C" or "D" steels as used in a wagon.

Mr. Ginwala.—So far as your principal material is concerned, it can be Indian?

Mr. Balfour.—Yes.

Mr. Ginwala.—As regards the machinery, I think, you said during the original enquiry that you manufacture some on a small scale, but I presume the bulk of it will have to be imported.

Mr. Balfour.—We can manufacture the machinery, but the great difficulty is this, that we seldom get two orders for which the engines are the same, that is, in one boat it might be 8″ and 16″, in another 10″ and 20″ and yet another 12″ and 24″ or larger. If we are to manufacture the whole of the sizes necessary, it would mean a large capital outlay in patterns which we would never recover.

Mr. Ginwala.—Therefore, the machinery has to be imported?

Mr. Balfour.—Yes.

President.—And you are not asking for an increase in the duties on machinery?

Mr. Balfour.—No.

President.—It must be left out altogether?

Mr. Balfour.—Yes. During the war we had to manufacture engines and we did it successfully up to 500 H. P.

Mr. Ginwala.—Was that a marine engine?

Mr. Balfour.—Yes. Complete with shafting, propeller, and all fittings.

President.—It is really a question of price?

Mr. Balfour.—Yes.

Mr. Ginwala.—Of the other imported materials there are the tackles, chains, wire ropes, etc?

Mr. Balfour.—Yes, all the accessories.

Mr. Ginwala.—Can these be manufactured in the country?

Mr. Balfour.—We have done anchors.

Mr. Ginwala.—Then these materials that are locally purchased, are they of local manufacture?

Mr. Balfour.—Yes, with the exception of wood. Capstans, bollards, paints are all local manufacture.

Mr. Ginwala.—Do you use local timber?

Mr. Balfour.—Yes.

Mr. Ginwala.—What I want to know is, is there any real difference between the cost of fabrication in ship building and, say, bridge building?

Mr. Balfour.—Yes, about 2 to 3 times the actual labour costs.

Mr. Ginwala.—In the previous enquiry I did not notice so much difference. There I think you have given it as about 40 per cent. of the total cost.

President.—In that case it was fabrication only, no question of erection.

Mr. Balfour.—Take the local materials. For instance, we have put down labour on the manufacture of capstans, bollards, etc. That would not come in under fabrication, but under erection.

President.—The point is this, that it does not really help you because the Rs. 28,000 is the all-in cost of fabrication in the case of the fabricated steel in your own figure. The c. i. f. cost of the steel is Rs. 43,000, with 10 per cent. duty it would get on to Rs. 53,000. That is not in the proportion of 16 to 40; it is not in the proportion of 16 to 30. That is the point.

Mr. Balfour.—We will think it over during tiffin time.

Mr. Ginwala.—You will find from your statement during the previous enquiry that there ought not to be very much difference.

Mr. Ginwala.—Have you been able to discover anything with regard to the question I put to you this morning whether there is any real difference between the costs of fabrication in ship building and bridge work?

Mr. Balfour.—Generally speaking, so far as fabrication is concerned, between girder work and ship building, there is not much difference.

Mr. Ginwala.—In answer to question 6 you stated that there was a drop in the landed cost of a Twin Set of Marine Machinery and there was a difference of 11 per cent.

Mr. Balfour.—Approximately, that was according to the rate of exchange.

Mr. Ginwala.—The Irrawaddy Flotilla Company say that they found the price precisely the same. We put the same question in their special questionnaire.

President.—There might be no difference in sterling although in rupees there would be.

Mr. Balfour.—There is a slight fall though it is not very much.

Mr. Ginwala.—Then in answer to question 9 you have stated that owing to the fall in the price of steel, you claim Rs. 830 and the effect of exchange you have given as Rs. 3,406, but there must be something set off against that on the other side?

President.—As against the effect of exchange.

Mr. Ginwala.—As well as against the fall in the price of steel. So far as the price of steel is concerned, the Tata Iron and Steel Company are getting, in addition to their protection by means of enhanced duty, a certain amount of bounty, the idea of it being that the price of steel should not go up and some allowance must be made for that. Is there no reduction in your own cost compared to 1923?

Mr. Balfour.—There is no reduction in labour.

Mr. Ginwala.—But in the case of the imported materials, in the cost of fuel, and the like?

Mr. Balfour.—There is a slight reduction in the cost of coal, but the amount of coal required in building a ship is not very much.

Mr. Ginwala.—If the difference is so small may it be treated as negligible?

Mr. Balfour.—It is not a big item.

Mr. Ginwala.—With regard to your own purchase of steel, has the grant of bounty made any difference to your prices?

Mr. Balfour.—We got steel at a very favourable rate until three months ago.

President.—Was that a special order? Does that affect your purchases generally?

Mr. Balfour.—That was for a special order.

Mr. Ginwala.—One of the reasons for giving a bounty was that they were unable to compete against the cheaper steel coming in. Has the bounty entirely gone into their pockets or have you benefited by it?

Mr. Balfour.—Of course in the case of wagons we benefited as we get a flat rate from Tata's.

President.—That has always been treated as a special case and it is not directly relevant to this one. As regards your ordinary purchases, are you still purchasing at the same terms relatively to British prices?

Mr. Balfour.—We are paying more now. Tata's used to give us Rs. 5 per ton reduction on home rates. I think it was three or four months ago that they knocked that off. Now we are paying the same rate to Tata's as we are paying for imported plates. I asked Tata's to advise the Tariff Board they had done this.

President.—Are there any special reasons which might induce Tata's to give special terms for plates required in ship building?

Mr. Balfour.—Two months ago we had an enquiry for two flats. Tata's happened to be very slack in their plate work. Knowing this enquiry was coming along, we got plates from Tata's at very favourable rates. This was the only instance.

President.—That was, so to speak, accidental. If any of their mills happened to be short of orders, it might be worth their while to cut their price to get the business.

Mr. Balfour.—That is what they have done.

President.—It was not something special for ship plates?

Mr. Balfour.—No. We had this enquiry and they asked us to give them a stock order for plates.

President.—It is difficult to keep the plate mill at Jamshedpur fully employed.

Mr. Balfour.—That was not my experience last year.

President.—If they are going to work one shift only, it may not be. That again depends on something else. It depends on the output of ingots.

Mr. Ginwala.—Then as regards the illustration you have given in answer to question 9, is it an actual case or a hypothetical case?

Mr. Balfour.—This would be an actual case if we had an order at the present day.

Mr. Ginwala.—It is rather hypothetical, then, is it not?

Mr. Balfour.—After all we did three flats and delivered them all last year.

Mr. Ginwala.—Have you actually built them according to these figures?

Mr. Balfour.—We must have delivered on these figures?

President.—You got your cost of fabrication from your actuals, whereas as regards the cost of the material, you have brought it up to date. In so far as it is not a question of materials it is practically based on actuals.

Mr. Balfour.—Yes.

Mr. Ginwala.—With regard to your answer to question 10, have you been able to find out why this order was not given to you by the Port Commissioners?

Mr. Balfour.—I understand it was a question of delivery.

Mr. Ginwala.—Do you mean date of delivery?

Mr. Balfour.—We quoted 12 and 15 months, 12 for one and 15 for another. The Home manufacturer said 11 and 13 months, whereas they were actually delivered one year late.

President.—The point is: what affected the mind of the Port Commissioners? Was it the question of delivery?

Mr. Balfour.—Delivery had a good deal to do with it.

President.—But for that, there has not been much difference in price.

Mr. Balfour.—Very little.

Mr. Ginwala.—Can you give us the specifications for the light vessels?

Mr. Balfour.—It can't be given off hand.

Mr. Ginwala.—Why did you require such a long time? Had you much work on hand?

Mr. Balfour.—It is a pretty heavy work and it would take a long time to do it.

Mr. Ginwala.—Will you give us the specifications, length, breadth, tonnage and so on?

Mr. Balfour.—Yes.*

Mr. Ginwala.—Please give us the same information as regards the Sukkur Barrage tug.

Mr. Balfour.—Yes.*

Mr. Ginwala.—Now I come to the most important point, that is to say, the measure of protection. You will remember in our last enquiry we had to find out first of all the c. i. f. landed price of fabricated steel; then we had to come to some finding about the price that you ought to get; and the difference between the two was the measure of protection. Here we have to do the same thing if we make any proposals, but so far we have not got sufficient information. We are more or less in the same position as we were then.

Mr. Balfour.—We have given you all the information at our disposal. If we can give you any more, we shall be very pleased to give it.

Mr. Ginwala.—It was for that reason this morning I asked you whether there is any difference between the cost of fabrication of girder work and ship building. If you cannot give us the c. i. f. price of fabricated ship work, you will have to give us some idea as to what the c. i. f. price of girder or bridge work is.

Mr. Balfour.—It is even more difficult to make these comparisons with ships, because Government import is so few.

Mr. Ginwala.—How do you suggest we should determine the measure of protection? We had to take a rough and ready method last time which was the only thing we could do.

Mr. Balfour.—I am afraid we have no information at all. If you take any type, we can give you the details, if you wish.

Mr. Ginwala.—Taking the I. G. flat as typical I want the cost of fabrication and erection per ton to be broken up. Please refer to page 114 of the Steel Report and see what we did there. I want to know the actual figures, you may be able to give me this information. We want to determine what the position is. There we have taken the cost of unfabricated steel ($1\frac{1}{10}$ tons) without duty.

President.—If the wastage is smaller, take the smaller percentage.

Mr. Ginwala.—Then you have the duty that you are paying now.

Mr. Balfour.—Would you include the wood work and the castings?

Mr. Ginwala.—I would if you could give the cost separately.

Mr. Balfour.—I dare say we might arrive at an approximate figure by analysing our cost sheet.

Mr. Ginwala.—What we have got to take into account is the fabricated steel. A ship imported from England may be brought out purely as fabricated metal and other things may be added here.

President.—Other materials and machinery really hardly enter into the problem at all, because the machinery in both cases will have to be imported and the wood work will be Indian even if the steel is imported. Take it on the basis of the I. G. flat and see if you could work it out on the basis of steel alone.

Mr. Balfour.—We will try and arrive at a figure per ton on the basis of I. G. flat.† In that figure would you like it for the boat to be afloat or do you wish the figure to be given for the boat on the slips ready for launching?

Mr. Ginwala.—Give us both.

Mr. Balfour.—Yes.†

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* Statement II, Enclosure V.
† Statement II, Enclosure VI.

President.—We really do want both for purposes of comparison.

Mr. Ginwala.—What about the other side of the account, that is to say, c. i. f. price?

Mr. Balfour.—I am afraid I can't give you any information.

Mr. Ginwala.—Can you give us the c.i.f. prices for bridge work and girder work?

President.—We have got quite a lot of information in our last Steel Report.

Mr. Ginwala.—There is one thing which we would like to know and which we have never been able to get so far and that is some information which will enable us to compare the cost of fabrication in this country with the cost of fabrication in England. There is one rough way of arriving at the cost. It is difficult to get the f.o.b. price of fabricated steel, but supposing we can get the c.i.f. price of fabricated material, we can work back to the f.o.b. By making allowance for insurance, freight and so on, we can arrive at the f.o.b. price of unfabricated steel in the same way and the difference between the two roughly represents the cost of fabrication. Of course, that would have to be corrected at this end by adding what the re-erection would cost. Would that be a rough way of doing it? Have you followed my point?

Mr. Balfour.—We have no figures either c.i.f. or f.o.b.

President.—We have got figures for bridgework.

Mr. Ginwala.—You have got to do something. You have got to establish your case and say "Here is this foreign article coming in at so much and here is this article that we can produce in this country. The difference in the cost is so much and that is the amount of protection that we want."

President.—The Sukkur case is a good case. Your tender is directly comparable, and the complication about the double cost of erection does not come in.

Mr. Balfour.—It is a very light vessel. It is a special shallow craft.

President.—Still it is something.

Mr. Ginwala.—What is precisely your proposal?

President.—First of all they say that we ought not to remove the protective duty.

Mr. Balfour.—We have given you figures in support of our proposal.

President.—I did try in my examination to deal with that particular point and suggested to you that compensating protection on account of the three items which you had mentioned amounted to 21½ per cent. and if you add the 10 per cent. it comes to 31½ per cent. Our report has been published and you know what our recommendation on fabricated steel is. You urge that the same method should be applied to the structural steel.

Mr. Balfour.—Yes.

President.—And you justify it on the ground of these three items.

Mr. Balfour.—Yes, and also on account of the fact that ships are similar to fabricated steel with the exception of machinery.

President.—Quite. We are treating the two on the same basis. We are only concerned with the fabricated steel parts of the vessel. Undoubtedly, they are similar. The final question you have got to meet is this. There is the fact that Mr. Cochran admitted in the original enquiry that the position was distinctly easier as regards ships than as regards other fabricated steel, and that competition was not so keen in the case of ships. Supposing the Board were satisfied that some protection was necessary, surely we have got to take account of the fact that competition is not so keen in the case of ships as in the case of other fabricated steel. Therefore, if a duty of 32½ per cent. is right in the case of other fabricated steel, something less than 32 per cent. is suitable in the case of vessels. How are we to arrive at it?

Mr. Balfour.—Don't you think that what Mr. Cochran mentioned there related to firms who have not got yards or skilled supervision to re-erect boats. After all, in bridgework and structural work, it does not require so much

technical knowledge to put these together as it does to put a ship together. What I am trying to point out is this. Outside those firms who have their own yards, there are others who have not got yards of their own. Nor have they the technical knowledge or assistance. They have to hand over the boat to the manufacturer here to re-erect.

President.—To one of the engineering firms?

Mr. Balfour.—Yes.

President.—Have you ever done work of that kind for a railway company or any other firm?

Mr. Balfour.—Yes, over 20 years ago.

President.—It seems to me that what you have said, tells against you. If the purchaser has got no yard of his own and has got no skilled staff to do it, he has an incentive to buy in India, and it will not suit him so well to get the work done at home and then to give it to an engineering firm here to re-erect it.

Mr. Balfour.—Mr. Cochran must have had that in his mind.

President.—Turning to the case of those who have yards, is there anybody else besides the Irrawaddy Flotilla Company and the India General Navigation and Railway Company?

Mr. Balfour.—There is the River Steam Navigation Company.

President.—Take these three firms. Would they in any case purchase from an engineering firm? Would not they utilise their own yards?

Mr. Balfour.—We have done a fair business with the India General Navigation Company. We built for them 2 flats in 1919, 6 in 1920 or 1921 and 3 flats last year. You said that Mr. Cochran stated that we had an advantage over foreign manufacturers in the matter of inland vessels. My point is that one of the advantages lies in the fact that it requires a highly technical staff.

President.—Do you mean that the erection of it, after it has arrived, requires a highly technical staff?

Mr. Balfour.—Yes, and the other advantages are a yard to lay the vessels down, launching ways, depth of water to launch, etc. All these have got to be taken into consideration. If these constitute a slight advantage, it is an incentive for the railway company or others situated like them to place their order in India.

Mr. Ginwala.—If you want protection you must make out a case that, unless protection is given to you, you would lose part of your business, and that there is some foreign competition against you. It is no good pointing out that there is internal competition against you, for that can hardly be a ground for protection. Except yourselves, there is nobody else here who build ships for others. The Steamship Companies build their own.

Mr. Balfour.—There are three other shipbuilders.

Mr. Ginwala.—They are relatively small and the competition is internal.

Mr. Balfour.—There is no doubt internal competition.

Mr. Ginwala.—The internal competition must continue. What we have to find out is how much foreign competition there is. As far as I have been able to make out, you have only given two instances where foreign competition came in. Your proposal comes to this that in order to enable you to get these two orders which you lost in the last two years, protection should be granted.

Mr. Balfour.—There is the value of the ships that have been imported. We are not aware of ever being asked to quote.

Mr. Ginwala.—In 1924-25, the value of the imports was Rs. 12¼ lakhs.

Mr. Balfour.—We have never been asked to quote for that.

Mr. Ginwala.—Surely it is not our function to see whether you have been asked to quote or not. The point is, what is the amount of competition that

you have to face? I am talking of foreign competition. Your argument is theoretical. It must be shewn that foreign competition exists in fact.

President.—Possibly, if the duty had remained at 10 per cent., as it was originally intended, there would be evidence. As a result of the duty going up, there is no evidence.

Mr. Balfour.—My case is that a ship should be treated like a tank.

Mr. Ginwala.—Can you show that tanks are being imported?

Mr. Balfour.—Tanks are imported.

Mr. Ginwala.—In the case of ships, you have to show that there is competition in the kind of ships that can be manufactured in this country. That is what we want to know.

Mr. Balfour.—If you reduce the duty to 10 per cent., all the orders will go home.

President.—That is what we are trying to find out.

Mr. Balfour.—I am sorry that we cannot give you more figures.

Mr. Ginwala.—Let us leave out 1924, 1925 and 1926. Let us take the year 1923-24. The value of the imported ships in that year was Rs. 71¾ lakhs. Supposing these importations were all made by steamship companies who also build ships, do you say that that competition was against yourselves?

Mr. Balfour.—If they could get them cheaper in India, they would place their orders in India.

Mr. Ginwala.—Take the case of the Irrawaddy Flotilla Company, for instance. They are not likely to give you any order even if you raise the duty to 20, 30 or even 40 per cent. They will either make them themselves or import them. If these importations are made by the Irrawaddy Flotilla Company and other steamship companies, can you say that there is foreign competition against you?

Mr. Balfour.—We can only look to the steamship companies, Port Trusts, Railways, Government and private concerns.

Mr. Ginwala.—How many ships do Government import?

Mr. Balfour.—Government have not bought any ships for the last four years, since the Royal Indian Marine Dockyard was closed.

President.—These are sea-going vessels, are they not?

Mr. Balfour.—I am talking about the river craft. They have not built any for the last four years. They will have to build during the next five years.

Mr. Ginwala.—During the last few years there has been a slump, so to speak.

Mr. Balfour.—Yes.

Mr. Ginwala.—When trade revives, if this protection is removed, you apprehend that all the orders will go home?

Mr. Balfour.—Certainly, they will go home?

President.—Our difficulty is just precisely this.

Mr. Balfour.—Each of the mills on the Hooghly has got a tug or two on the river.

Mr. Ginwala.—We have got to deal with an existing evil and not an evil which may or may not arise.

Mr. Balfour.—Surely, you cannot protect one structure and leave the other.

President.—The question is whether you need it.

Mr. Balfour.—It is necessary.

Mr. Ginwala.—We are trying to get information from you. What we are concerned with is how much of foreign importation takes place. If there is no foreign competition, no question of protection can arise.

Mr. Balfour.—I say there is foreign competition. We are of the opinion that if shipbuilding is hampered in any way by the removal of the duty at present existing there never will be a shipbuilding industry in India.

Mr. Ginwala.—As regards the general question, do you consider that the shipbuilding industry ought to be encouraged in India?

Mr. Balfour.—Yes.

Mr. Ginwala.—You remember the conditions laid down by the Fiscal Commission. Do you consider that these conditions are fulfilled on the whole by the shipbuilding industry except as regards machinery?

Mr. Balfour.—Yes.

Mr. Ginwala.—As regards labour, is there sufficient Indian labour available?

Mr. Balfour.—Yes. We have had a hard struggle for the last three years in keeping our labour together.

Mr. Ginwala.—Owing to lack of orders.

Mr. Balfour.—Yes.

Mr. Ginwala.—You don't consider that compared with shipbuilding abroad of this particular kind you suffer from any disadvantage?

Mr. Balfour.—None whatever.

Mr. Ginwala.—Either as regards raw materials or labour or as regards power or fuel, you don't suffer from any disadvantage?

Mr. Balfour.—No. We have got everything in our yard. In fact we are better equipped than many shipyards at home of the same size as ours.

Mr. Ginwala.—In answer to question 13, the Irrawaddy Flotilla Company say "The present average c. i. f. cost of the fabricated steel parts of imported vessels chargeable to duty varies according to the size of the vessel concerned but it is roughly between Rs. 720 and Rs. 840 per ton, to which duty has to be added."

Mr. Balfour.—I would be prepared to accept orders at these figures.

Mr. Ginwala.—What is your total consumption of steel in a year?

Mr. Balfour.—We gave that in the original enquiry which you made. It was 2,650 tons in 1923.

Mr. Ginwala.—That also includes galvanized sheets, plates and rivets.

Mr. Balfour.—Yes.

Mr. Ginwala.—If you deduct that, it would leave about 2,300 tons.

Mr. Balfour.—Yes.

Mr. Ginwala.—You say you are working about 20 per cent. of your capacity.

Mr. Balfour.—Yes.

Mr. Ginwala.—In a full year you say you will use about 10,000 tons.

Mr. Balfour.—It would greatly depend on the type of boat.

Mr. Ginwala.—Taking one thing and another together?

Mr. Balfour.—About 6,000 tons.

President.—In 1923, in answer to the question "State approximately the kinds of steel, and the quantity of each kind required by the firm annually for the manufacture of their products", this (2,615 tons) was given as a normal figure for your shipyard department.

Mr. Balfour.—We must have given the average figure.

Dr. Matthai.—You mentioned this jute flat as typical and give your costs with reference to that. I was wondering whether there is this idea behind that that flats and barges form the great bulk of the work that you do and have done for years.

Mr. Balfour.—In tonnages, yes.

Dr. Matthai.—The evidence given by your representative during the original enquiry was that, as far as flats and barges were concerned, since he

joined the Company, there has been very little foreign competition and that you have been able to hold your own.

Mr. Balfour.—A river steamer company imported three in about the end of 1923.

Dr. Matthai.—What Mr. Cochran said was that ever since he joined Messrs. Burn & Co. there were very few cases of imports of barges and flats. He put it fairly strongly. (Page 397, Volume II of evidence).

Mr. Balfour.—I know that three flats did come out for the River Steam Navigation Company in 1924.

Dr. Matthai.—Since then there has been very little importation of any kind of ships. Circumstances have not changed, as far as that is concerned.

Mr. Balfour.—I don't think trade has been so bright as to induce them to go on building at the present moment.

Dr. Matthai.—As far as these small steam vessels are concerned—I mean things like launches—I suppose the local producers are in a position of advantage. What I am trying to suggest is that when people out here are placing orders for these small vessels, it is an advantage to have their dealings with local firms, other things being equal. So that from that point of view the local producer is in a position of advantage.

Mr. Balfour.—Yes, because we are on the spot.

Dr. Matthai.—If it is true that these small vessels can come out in sections in the sense accepted by the Central Board of Revenue, then these small launches might also come out in that shape?

Mr. Balfour.—They might, but probably they would come whole.

Dr. Matthai.—If that is so, what I want to ask is this, that in relation to the cost of these launches the fact that they would come in sections might increase the freight?

Mr. Balfour.—We admit that. If they come out whole laid on the deck of a vessel I have no idea of the freight they would charge.

Dr. Matthai.—I was looking at it this way. Your first advantage is that you are on the spot. The second is that there might be a heavier freight on the imported article on account of the bulk, so that, as far as these small crafts are concerned, you are in a position of strong advantage. Is that assumption right? There is one thing that rather confirms me. I was reading the evidence given by Mr. Stuart-Williams and I think he said, as far as these small things are concerned, the Port Commissioners have not for several years placed orders outside India and that confirms my impression with regard to these small vessels.

Mr. Balfour.—That was when the duty was 10 per cent. That did not prevent the Port Commissioners from calling for tenders from home.

Dr. Matthai.—What Mr. Stuart-Williams said was that "tugs, launches and small craft generally can be constructed here and as far as we are concerned practically all were constructed locally." Then coming to these bigger steam vessels Mr. Ginwala raised a point in his examination with regard to the question of your being able to construct the sort of big vessels plying on the Irrawaddy. I want to raise a similar point from a different point of view. You are working in Bengal and the market which is close to you is the market on the river here. My impression is that the vessels that you make are meant for the purpose of traffic over short distances on the river.

Mr. Balfour.—No, not necessarily.

Dr. Matthai.—I mean mainly not entirely.

Mr. Balfour.—These river paddle boats go 500 or 600 miles from Calcutta.

Dr. Matthai.—But the bulk of your work is done really for short distance traffic? I am speaking of the steam vessels.

Mr. Balfour.—I suppose a great many do ply between one shore and another.

Dr. Matthai.—The point I want to be clear about is this. Assuming that it is true that the main traffic for which you cater in regard to steam vessels is short distance traffic, then small vessels will do for that purpose. Supposing you have a long distance to cover, the boats would be bigger. Take the passenger service on the Irrawaddy, for instance, where they have to cover long distances. Obviously, the boats would have to be bigger ones there.

Mr. Balfour.—They would be bigger. They would have to carry more coal and more water.

Dr. Matthai.—If the market which lies immediately to hand, as far as you are concerned, consists mainly of small vessels, then supposing we gave you protection in regard to that type of vessels alone, do you think you would have any reason for complaint? Supposing I said—assuming it is administratively possible—we would restrict the protection to steam vessels of, say, about 100 feet to 150 feet in length, as far as you are concerned, is there any reason for complaint?

Mr. Balfour.—That is as far as the Hooghly is concerned.

Dr. Matthai.—I am leaving out Assam for the moment, I am thinking of Calcutta where you have a market of your own. Here is a market more properly your own and if the bulk of that market consists of these small vessels and we gave you protection, as far as these vessels are concerned, won't you be satisfied?

Mr. Balfour.—Do you mean that companies in Calcutta would not ply in the Assam rivers?

Dr. Matthai.—What proportion of your work is meant for Assam traffic?

Mr. Balfour.—In 1913, we built two paddle steamers 165 feet long, two landing stages, three wagon loading barges—the whole ferry scheme.

Dr. Matthai.—That is rather the kind of opportunity that comes your way.

President.—They are in as strong a position in Assam as in Bengal.

Dr. Matthai.—What is the size of the barges you have just referred to?

Mr. Balfour.—They would be 220 feet long.

Dr. Matthai.—The sort of difficulty in my mind is this. Here are the Irrawaddy Flotilla Company people who have protested against an increased duty and it occurs to me that supposing in response to your representation we increase the protection for ship building by raising the rate of duty in order that you may be able to capture the whole of the Indian market—supposing we are asked to do that—I would find it very difficult to accede to your request. Supposing we gave you enough protection in regard to the market nearest to you and that you were able to carry on with that protection, in that case a rate of duty or range of protection, which would give you the whole of the Indian market, would, as far as I am concerned, be difficult to give.

Mr. Balfour.—We have always have had the whole of the Indian market, why should we be deprived of that now? There is not one port in India for which we have not built ships.

Dr. Matthai.—We are not here to ensure that you should get every order that arises in the country. As far as I am concerned, the way I look at this problem is, whether we can give you sufficient amount of protection for you to survive as an industry, not that you should be able necessarily to capture the whole of the Indian market.

Mr. Balfour.—Don't you want to develop the industry? Then why deprive us of the market which we have already got? We have built ships for every port in India; why take it away from us now?

President.—If that be so, you must have very great natural advantages in your own local market.

Mr. Balfour.—Not necessarily, because we have competition in Calcutta. There is no such keen competition in Bombay and Karachi.

President.—If you could compete with foreign ship builders in Bombay and Karachi that necessarily means that they cannot possibly compete with you in Calcutta.

Mr. Balfour.—I don't say that they never called for tenders from outside, but probably it was called only in India. They are satisfied with our work.

Dr. Matthai.—You speak of the increased competition. I quite admit there is. But may I put it to you this way, that practically, as far as I know, there is no branch of the engineering industry which is in a more depressed condition than the ship building industry. One reason why you have this enormous difficulty is the paucity of orders. If the problem you are up against is general paucity of orders no Tariff Board can help you because we cannot create orders.

Mr. Balfour.—Quite so, but my contention is that you have protected every other industry, and from your Report I understand that the ship building industry is to get nothing owing to the bulky nature of the materials which are imported.

President.—Protection for the shipbuilding industry was not recommended because we were not satisfied that protection was required.

Mr. Balfour.—One of the reasons you gave was the bulky nature of the materials imported.

President.—That is by no means the whole of the case. The general position then was that we were not satisfied that protection was required, and it is precisely for that reason that Dr. Matthai is asking you these questions to enable you to give your reasons and remove the doubts he has in his mind.

Mr. Balfour.—If we had any figures about the imported article, I should only be too pleased to place them before you but unfortunately I cannot obtain them. We have tried hard but have failed to get them.

Dr. Matthai.—That is precisely our difficulty. I want to raise another point in connection with that. Supposing one suggested that in regard to steam vessels protection should be restricted to a particular size, would it be at all possible, if steel parts came out here, to say that steel parts of a particular size are for a particular purpose?

Mr. Balfour.—Yes. If it were a 140 feet boat we would have 150 feet.

President.—Supposing it was decided that 150 feet was to be the limit of the size of a vessel to be built in this country, would you fix the limit to 200 feet?

Mr. Balfour.—They would. If they were thinking of a boat 155 feet long, they would naturally put another 5 or 10 feet on to get greater speed.

Dr. Matthai.—Is there still very much prejudice against the quality of Indian ships?

Mr. Balfour.—I don't think so. Of course, there are certain people who would always prefer home manufactured boats.

Dr. Matthai.—With regard to these light vessels, you have said that it would hinge on the question of delivery. I was wondering whether in cases of this kind there may not be the question of quality at the back?

Mr. Balfour.—There is no question of quality.

Dr. Matthai.—Is it possible to say what is in normal times the total annual demand for steam vessels in Bengal and Assam?

Mr. Balfour.—I am afraid not. I don't think there is a renewal programme. They cannot afford it.

President.—Nothing is normal under the present circumstances.

Mr. Balfour.—They would meet their needs when the market is favourable.

President.—I have got only two small points. The trade returns for the future may not disclose the actual imports of ships because the effect of the Central Board of Revenue's ruling is that these fabricated steel parts of ships will be classed as fabricated steel and it is conceivable they may come in as fabricated plates or something of that sort in the trade returns, so that

for the future it may be unsafe to rely on the value of these figures. The other point is that I looked up the freight returns of the Indian Stores Department which we got during our Cement enquiry and the only item that is at all relevant there is that they give the freight for bridge work—

"Small and Heavy (not Lattice Girders) (line by line of specification)	35*s.*
For lifts over 3 and up to 5 tons	55*s.*
Over 5 tons, 5*s.* per ton or part thereof extra to be charged."	

If the Irrawaddy Flotilla Company imported their fabricated steel parts of vessels with a certain amount of joining work already done, you might get something comparable to that. I cannot conceive why they should do it because the plates are flat enough.

Mr. Ginwala.—The Irrawaddy Flotilla Company say that these plates and angles have to be galvanized after the furnacing and shaping has been done. Supposing we said ships containing so much of galvanized material be excluded, could that be done without interfering with the rest of the ship building business?

Mr. Balfour.—The chief trouble would be as regards the hull.

Mr. Ginwala.—On what part of the ship would this galvanized steel be required?

Mr. Balfour.—On the sides and the bottom; it will converge at the ends.

Mr. Ginwala.—Could that be separately imported completely fabricated?

Mr. Balfour.—I am afraid not, because they are rough smithed and then tried on the ships, and when finally set put back from the ship, marked off and the holes drilled or punched.

Mr. Ginwala.—Could that be rolled in that shape and then imported?

Mr. Balfour.—No.

Mr. Ginwala.—Can other fabricated steel be easily distinguished from ship work?

Mr. Balfour.—That would be difficult. The bottom plates and side plates may come in as tank plates. Tank plates could be brought in as ship plates, if the duties were lower.

Mr. Ginwala.—What about such other things such as angles, bars, etc.?

Mr. Balfour.—Angles and bars can hardly be put down as anything except ship's frames (provided they are bent to shape). Deck beams could come in as anything.

President.—If it were proposed to put a higher duty on fabricated steel parts of ships than on ordinary fabricated steel, then I think there might be difficulty because they might try to bring them in something else, but practically if it is a question of having a lower duty on fabricated steel, they would come in larger quantities and the Customs authorities could deal with them.

Mr. Balfour.—That is the point.

Mr. Ginwala.—Supposing we put a lower rate of duty on fabricated ship material, would other kind of materials be passed off as fabricated ship material?

Mr. Balfour.—There is no reason why they should not bring in a tank plate as a ship plate.

Mr. Ginwala.—Are tank plates a substantial part of fabricated ship materials?

Mr. Balfour.—I see no reason why they should not bring tank plates as ship plates, if the duty was low.

Mr. Ginwala.—You think that there would be difficulty in identifying them?

Mr. Balfour.—If they wish to do it, there is no reason why they should not punch some holes in any plates.

Mr. Ginwala.—If there is a hole in it, would it be taken as fabricated?

Mr. Balfour.—Yes.

Mr. Ginwala.—Is the difficulty real or imaginary? If the Irrawaddy Flotilla Company succeed in establishing the case that the kind of ships they require cannot be manufactured in this country and if they should be excluded from any scheme of protection, even if protection is granted to plates, can they bring in the imported ships simply as fabricated steel and pay a lower rate of duty? I want to know whether that steel could be clearly identified and distinguished from the steel of the same kind carrying a higher rate of duty.

Mr. Balfour.—It is difficult to distinguish, if they wish to do anything like that.

Mr. Ginwala.—The Irrawaddy Flotilla Company may not do it. But people, who import such steel, might well say that it was all ship material. Can they say it?

Mr. Bates.—There is no reason why they should not. We cannot imagine that the Irrawaddy Flotilla Company would do such a thing. The shipping specification will be issued with the materials that would come along. All that the investigator need do would be to ask for the specification and see whether the shipping materials are according to the specification.

Mr. Balfour.—Leaving out the shipping companies altogether, supposing the importer of ordinary plates imports plates as ship materials, he will get them at a cheaper rate than bringing in plates as raw material, if the duty is retained at 10 per cent.

Witness No. 5.

MESSRS. JOHN KING AND COMPANY, LIMITED.

WRITTEN.

Reply to Questionnaire, submitted by the Indian Engineering Association with their forwarding letter, dated the 15th October 1925.

1. All the classes specified.

2. (1)	Paddle Steamer	130 feet	Rs.	1,50,000
(2)	Tug	100 „	Rs.	1,00,000
(3)	Cargo Boat	100 tons	Rs.	18,000
(4)	Flat	200 feet	Rs.	75,000

3.	(1)	(2)	(3)	(4)
(a)	14%	Same as No. 1.	40%	40%
(b)	50%		*Nil*	*Nil*
(c)	1%		10%	30%
(d)	10%		20%	8%
(e)	25%		30%	22%

4. The percentage depends on whether the material can be bought from Tata or imported.

5. (a) 58 per cent.
(b) 25 per cent.
(c) 4 per cent.
(d) 13 per cent. Bolts and Rivets.

7. We agree with this view as a statement of the position in 1923.

8. We cannot mention any facts which might have led the board to take a different view.

9. As competition from Overseas in the Indian market is much keener than in 1923 there is a need for higher protective duties on imported vessel and their component parts.

11. We can construct vessels up to 350 feet long.

12. Yes.

Witness No. 6.

CHIEF CONTROLLER OF STORES.

WRITTEN.

Letter dated the 12th January 1926.

I have the honour to refer to your letter No. 6, dated 6th January 1926, regarding the purchase of 2 paddle tugs for service at Sukkur. The replies to your questions are as under:

(1) The order was placed by the Director-General, India Store Department, London, with Messrs. Lobnitz & Co., Ld., Renfrew, at a price of £27,200 *plus* 10 per cent. customs duty delivered afloat at Karachi.

(2) The successful tenderer did not quote for the cost of transport to site from Karachi and erection there. His quotation was for delivery afloat at Karachi.

(3) Full details of the English tender are not available in this office. It was cabled by the Director-General, India Store Department, London, as under:

"Your letter dated 16th April N.-2376. Best tender paddle tugs delivered afloat Karachi £27,200. First vessel delivered Karachi 6 months, 2nd 7 months. Price for delivery f.o.b. Great Britain in sterling will follow."

A copy of this office letter No. N.-2376, dated 16th April with its enclosures is sent herewith.

It was assumed on receipt of the Director-General's reply that the paddle tugs offered by him as the best tender would in all respects comply with the specifications sent to him.

On receipt of his reply and the tenders from firms in India this office letter No. 2326, dated 20th June 1925 (copy attached) was addressed to the indentor, the Chief Engineer, Lloyd Barrage and Canals Construction, Karachi, and the latter decided to accept the Director-General's tender—*vide* his telegram, dated 25th June 1925, to the Director General (copy attached).

It is probable that the delivery dates offered by Messrs. Burn and Company weighed considerably with the indentor in making his decision as they did with this Department in making its recommendation.

The preference given to the Director-General's tender over that of Messrs. Herman and Mohatta was, however, based mainly on price, and in this connection it must be pointed out that, owing to an unfortunate mistake on the part of the Director-General, India Store Department, London, in not making his tender clear, it was accepted on the assumption that it included customs duty, whereas in fact it did not, and an additional 10 per cent. was ultimately paid by the Chief Engineer, Lloyd Barrage and Canals Construction on this account. Had it not been for this mistake, it is quite possible that the tender of Messrs. Herman and Mohatta would have been accepted.

Should you require any further information in regard to this particular order, I would suggest your communicating direct with the Chief Engineer, Lloyd Barrage and Canals Construction, Karachi, with whom the final decision rested.

2. I regret that I cannot furnish any further information in regard to the comparative cost of purchasing inland vessels in India or importing them from abroad as the order referred to above is the only one for such vessels, which this Department has yet handled.

Enclosure I.

Copy of letter No. N.-2376, dated Simla, the 16th April 1925, from the Chief Controller of Stores, Indian Stores Department, Simla, to the Director-General, India Store Department, London.

Subject:—Invitation to tender for Order No. N.-2376, for steam driven oil fired paddle tugs for the Lloyd Barrage Works, Sukkur.

I have the honour to forward herewith 20 copies of specification* No. P. I. 91 for the above, and to request that tenders may kindly be invited and the best tenders obtained cabled so as to reach this office by 1st June certain.

Kindly give prices f.o.r. British port and freight to Karachi separately.

Enclosure II.

Copy of letter No. 2376, dated 20th June 1925, from the Director of Inspection to the Chief Engineer, Lloyd Barrage and Canals Construction, Karachi.

With reference to letter No. 1988, dated the 26th March 1925, from Mr. Musto asking us to call for tenders for two paddle tugs for use on the Indus at Sukkur, and in continuation of this office wire No. N.-2376, dated 19th instant, I beg to say that tenders were called for and only two have been received in India, one from Messrs. Burn & Co., and one from Messrs. Herman and Mohatta. The Director-General of Stores has communicated the best tender received by him by wire a copy of which in decoded form is sent herewith. The Indian tenders are also sent herewith and may be returned when done with. Our specification called for, on Mr. Musto's advice, two paddle tugs briefly as follows:—

Approximate dimensions.

Length overall	100′ 0″
Breadth, moulded	18′ 0″
Depth, moulded	5′ 6″
Draft, loaded	2′ 7½″

Power.—To be of sufficient power to tow a barge 20′ wide, draft 1′ 6″, load 100 tons at 9 knots on still water.

Width.—Governed by the fact that the tug is to tow, abreast, a barge 20′ 0″ wide between piers 60′ 0″ apart.

Messrs. Burn & Co.'s tender.—This tender is very full and complete and I send herewith a blue print of:—

(1) general arrangement,

(2) midship's section, and

(3) two photos. of paddle steamers built by them. These may be returned when done with.

These will give you an excellent idea of the vessels tendered. There are some very important facts which have to be noted however.

First delivery cannot be promised at site till 14 months from receipt of the order and 5 months are required for erection at site. That is, say, 20 months in all, allowing for delivery of fabricated material at site.

*Not printed.

Two vessels are tendered for the first

Length O. A.	132′ 6″
Length on W. L.	125′ 0″
Breadth Mld.	19′ 6″
Depth Mld.	6′ 0″
Draft	2′ 7½″ with 10 tons.
1 H. P.	230

Estimated speed 9 knots towing a 100 tons barge. Engines two separate sets of Diagonal Compound Surface Condensing Engines of British manufacture each driving own paddle wheel. Boiler, Babcock and Wilcox Express water tube type, 160 lbs. pressure, heating surface 890 square feet 5,000 lbs. of steam per hour. Wallsend Howden system of oil firing. Bellise and Morcom General-Electric electric lighting set. All other details of first class make and up to specification.

Price for two afloat on Indus at Sukkur, Rs. 4,83,614 at ¼ per rupee subject to what follows.

Reduction for one Condenser only 4,061. Hand reversing gear only 2,295. We could not recommend these alterations. The price of imported material is approximately 1,15,000 (probably per vessel but a reference has been made) which alone is subject to exchange variation.

The alternative is a vessel as follows:—

Length O. A.	119′ 6″
Length on W. L.	112′ 0″
Beam moulded	18′ 0″
Beam O. A. about	35′ 0″
Depth moulded	6′ 0″
Draft	2′ 7½″

With 8 tons of fuel and water. Speed in slack water about 10 miles per hour when not towing. They are not prepared to guarantee the towing speed. Boiler, engines, etc., came as above but suitable for 150 I. H. P. Price afloat on Indus at Sukkur 2,02,775 per vessel or Rs. 4,05,550 for two vessels. The variable price in this case is approximately 1,00,000.

Speeds in both cases must be in reasonable depth of water. The points for your consideration are:—

(1) Delivery, which is long, so long that we have given the offers little consideration.

(2) Size and power of vessels offered.

Minor alterations may be carried out, such as shifting the search light, without addition to price. The searchlight is of the Suez Canal type 8,000 to 10,000 C. P. and 24″ dia. Certain spares are included and a very complete outfit of accessories. Messrs. Herman and Mohatta have submitted a very incomplete tender, but the following particulars are given:—

Length O. A.	105′ 0″
Breadth Mld.	19′ 0″
Depth Mld.	5′ 6″
Draft loaded	2′ 7½″
1 H. P.	230

Boiler Babcock and Wilcox Express type, W. P. 160 lbs. heating surface 890 square feet. The whole will apparently be manufactured by Messrs. Alley MacLellan who are first class in this line. Delivery afloat on Indus. First tug 9½ months, second tug 10½ months. Price afloat on Indus, Rs. 4,32,800

for two. The variables will be apparent from the tender. It is stated that engines are the largest practicable for the draft but are scarcely sufficient for full towing speed.

There is a vessel by Alley and MacLellan in Messrs. Herman and Mohatta's yard just now which you might care to see. The price is at ¼ to the rupee and the variable is Rs. 1,65,911 on each vessel.

You will note that the engines and boiler are of the same power as Messrs. Burn offer for their larger vessel, but while Messrs. Burn guarantee their towing speed Messrs. Herman and Mohatta do not. The latter are probably more correct than Messrs. Burn & Co.

We await further details which have been promised but we have no doubt the offer of Messrs. Herman and Mohatta is for first class vessels.

You will note the paucity of detail in the Director-General of Stores' offer and we have to assume that the vessels offered will fully meet your requirements. It is clearly difficult to meet these having regard to speed, draft, length and breadth. Messrs. Alley and MacLellan who are highly experienced in river craft work you will note have put forward a vessel 5′ 0″ longer than specified and 1′ 0″ broader and yet do not guarantee towing speed. Messrs. Burn & Co. guarantee towing speed with a vessel 32′ 6″ longer and 1′ 6″ wider, but do not do so with a vessel 19′ 6″ longer and of specified width. The power of the Alley and MacLellan vessel is equal to that of the Burn larger vessel. We may take it that the Alley and MacLellan vessel will be of lighter scantling than the Burn and so will more nearly meet conditions, and arguing on these lines assume the Director General has a tender which will fully meet conditions.

The prices are per vessel:—

Burn & Co. large vessel, Rs. 2,41,807.

Burn & Co. small vessel, Rs. 2,02,775.

Herman and Mohatta, Rs. 2,16,400 at 1*s.* 4*d.* exchange and afloat at Sukkur.

Director General of Stores, Rs. 2,04,000 afloat at Karachi.

On the assumption that you cannot wait for Burn & Co.'s delivery and that the small vessel will not meet requirements we have ruled out their offer. The comparison between Director General's price and Messrs. Herman and Mohatta's is however very close. You will note that between the price of the first at Karachi and the second at Sukkur there is a difference of Rs. 12,400 or just over 6 per cent. Allowing for steaming to Sukkur the difference will not be more than 5 per cent. Delivery in all cases, however, is late and allowing for voyage to Sukkur you should have a clear advantage in the Director General's offer of 2¼ months for the first tug and two months for the second. It might be a great advantage to you to have these vessels put together under your own eyes when you would have your wishes as to details more accurately met. All things considered, however, we feel constrained to recommend acceptance of Director General's offer, and particularly as price comparisons have been made at 1*s.* 4*d.* to the rupee while exchange will probably be higher and give a further advantage to the Director-General's tender.

Enclosure III.

Decoded Text of Cablegram, dated 25th June 1925.

From—Karachi,

To—London.

Translation.

"Your telegram dated 17th June 5213, addressed to the Chief Controller of Stores, Indian Stores Department, Simla, regarding Tugs. Accept best

tender £27,200 including Customs duty for two paddle Tugs delivered afloat Karachi first vessel six months second seven months subject (to) conditions complete specifications fully adhered to and delivery dates guaranteed.

No. W.-4279 of 1925.
Office of the Chief Engineer,
Lloyd Barrage and Canals Construction,
Karachi, dated 1st July 1925.

Copy by post forwarded, with compliments, to the Director General of Stores, India Store Department, London, in confirmation.

E. P. WATSON,
Executive Engineer,
for *Chief Engineer,*
Lloyd Barrage and Canals Construction.

Copy, forwarded, with compliments, to the Chief Controller of Stores, Indian Stores Department, Simla, for information with reference to the correspondence ending with his telegram No. N.-2376, dated the 24th instant.

The Chief Engineer does not consider it necessary to refer the matter to Mr. Musto while on leave.

Copy forwarded, with compliments, to the Acting Superintending Engineer, Lloyd Barrage Circle, for information.

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