

## FOREWORD.

By SIR ROBERT WATSON SMYTH, Kt.,  
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Mr. George Pilcher has asked me to write a few lines as a foreword to the pamphlet which he is issuing in connection with the proposed protective tariff on steel, now being considered by the Tariff Board. I do this with great pleasure, because, although I must not be considered to guarantee the accuracy of his statements, or even to endorse all his arguments, I believe the matter to be of such importance, and I have found that public knowledge on the subject is so scanty, that a pamphlet of this kind is of great value.

In my opinion, this question of the protection of steel, both raw and manufactured, is one of the most important economic questions that has arisen so far in the history of India. Such, however, is the apathy of many people in the commercial world and outside, that this question, with all the effect that it will have on India, seems to be rousing but little intelligent interest, even on the part of those who will undoubtedly feel the effects hereafter most severely. It is well for us that someone has been energetic enough to strip this subject of all the shibboleths of free trade and protection, and present it to the public as a series of plain, naked facts. The effect on every trade and industry is treated more or less in detail, and any man will be able to see with very little trouble what effect it is likely to have on whatever he happens to be interested in. The great industries of Bengal, coal, jute and tea, will all feel the effects of this proposed protection, and it would be as well that those who are interested in these great industries should study the case as put forward in this pamphlet.

The question, however, goes beyond the limit of commerce and industry. The effects of this tariff will be felt throughout the whole enormous agricultural population of India. It may be that the effect on them individually will be small, if put into figures, but however small it may be, it becomes a burden when applied to the raiyat whose poverty is such that there is no margin between the actual necessities of life and the money which he earns. If the few clothes that he wears and the rough instruments that he uses in his work cost more, and they will undoubtedly cost more, then that extra price must be got by reducing the quantity of the food that he eats, because there is nowhere else for it to come from.

Indian politicians are fond of repeating that they represent the people of India. They resented the increase in the salt tax as imposing a heavy burden on "India's voiceless millions." Can it be that the same politicians will agree to the imposition of a tariff for the benefit of one particular industry that will add to the burden of those same millions? The whole population of India, whether agricultural, commercial, industrial or professional, are crushed by the burden of taxation and are crying out for relief in the form of lower prices and a reduced cost of living. Could any time be more inopportune for suggesting a protective tariff for the benefit of one particular industry, the effect of which will be felt throughout the whole of agricultural and industrial India?

The subject is one of the greatest importance, and it would be as well for all thinking people, whether Indians or British, whatever may be the shade of their political opinions, or whether they hold the tenets of the Free Trade or Protectionist creed, to give this subject their most serious consideration if they really care for India's future prosperity.

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4, Council House Street,  
Calcutta, November, 15, 1923.

# PREFACE.

By J. C. COYAJEE,

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As a journalist who has devoted many years to the service of India, Mr. Pilcher requires no introduction to the Indian public. However, in my character as a discriminating protectionist and as one who has anxiously striven in his humble capacity to give a rational and scientific basis to the fiscal policy of the country, I may, without presumption, extend a warm welcome to him on his entry into the field of fiscal controversy. Even one who cannot endorse all his conclusions must appreciate the merits of a careful and conscientious study of facts bearing on an important aspect of the Indian tariff problem; and it is universally admitted that all sound fiscal policy is based on studies of the concrete facts of industry. Discriminating protection must regard and balance, on the one hand, the potentialities of industry, and, on the other hand, the capacity of the consuming public to bear the burdens of a tariff.

According to the highest economic authorities the argument for according protection to young industries proceeds on the assumption that the immediate effect of such a policy is to cause a national loss—a loss which might be offset by gain in the long run. The existence of such a sacrifice or loss is no decisive argument against the policy of Protection; but it is very necessary to make a careful estimate of the extent of the loss or sacrifice involved in each application of the policy of Protection and to Mr. Pilcher we owe a detailed, laborious and timely exposition of some important items in the balance-sheet of a potential steel Tariff.

Mr. Pilcher has touched, among other things, on the potential influence of Protection on the volume of India trade: and here his conclusions do not differ materially from those of the Fiscal Commission or of those economic experts who appeared before it. The immediate effect of a tariff is very likely to be seen in a reduction of the volume of trade. But there are also the long-period effects of the policy to be taken into account. In adverting to these Mr. Pilcher shows himself far from being an uncompromising Free Trader. "It is even arguable," he says, "that, in time and at long last, the creation in India of factories devoted to the production of steel and machinery would, through the promotion of general prosperity and a higher standard of living, create a new and alternative demand for foreign importations, which would more than take the place of those now in danger of being destroyed." In fiscal controversy the confusion of long period and short period results is a source of many fallacies.

It is a very important part of the work of a protectionist régime to balance the interests of industries and to study their conflicting claims. In the case of India, where the basic industries—like steel or chemical products—have yet to be developed the conflicts are numerous and rage in their most pronounced form around the claims of such basic industries to protection. Mr. Pilcher has successfully and vigorously traced the retarding effects of a steel tariff on port and railway construction, on the jute and tea industries and on agriculture. Here again, the problem is a dynamic one and its aspects are different as envisaged from the immediate and the distant future. Mr. Pilcher has mainly regarded the former aspect: but in the distant future the rise of a great steel industry in India might affect favourably the whole national industrial development. Still, within its own scope Mr. Pilcher's treatment is very instructive since we cannot neglect the present while looking out on the future. In my own opinion

all depends on whether the protection extended is of the proper type—given in proper directions, to the right amount and for the barely necessary period. There can be no manner of doubt that a really profitable and judicious policy of Protection requires very delicate adjustment and balancing—balancing between the interests of the latter *inter se*, and balancing between the present and the future interests of the nation as a whole. Hence discriminating Protection is not a matter of facile formulæ but of realistic studies like the present.

It is to be hoped that Mr. Pilcher's pamphlet will be widely read and that it will provoke thought and arouse fruitful controversy. We in India are at present far too preoccupied with political affairs and changes to devote the requisite attention to the study of the even more vital economic issues. Twenty years ago the work of the Fiscal Commission and of the Tariff Board would have called forth a fiscal literature in India; in these days it has so far elicited only a few articles in the newspapers. What is really wanted is to rouse the public to take an interest in the controversy and to study the arguments on either side before a national policy is launched. From this point of view the position assumed by Mr. Pilcher is an advantage.

It is to be hoped that some Protectionist will come forward to try and meet Mr. Pilcher's arguments. He might draw inspiration from the remark of the highest living authority on tariffs (Dr. Taussig) that the case in favour of Free Trade is and must always be *prima facie* strong; but there may be offsetting advantages which rebut the presumption. A consideration of these, however, calls for some very delicate balancing of losses and gains. There is another advantage in the presence of Free Trade\* protagonists like Mr. Pilcher. As Professor Lees Smith points out, there will always be very important work for a Free Trade school in India as well as in all protectionist countries, and that work is to free the tariff from the abuses which so commonly accompany it. The present pamphlet might well be the *avant courier* of the activities of that school—its first step towards the performance of its true function as enunciated above. The slightest acquaintance with tariff history will show how often the work of Protection has been marred by abuses and excesses and great protectionist writers like Schmoller and Taussig are never tired of protesting against an exaggerated protectionist policy. The tariff history of a century would have been written in vain if we in India did not benefit by it. The discriminating protectionist is not afraid of vigorous criticism; nor does he ignore it; he profits by it.

J. C. COYAJEE.

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\*Note.—Professor Coyajee appears to assume that the inspiration of my argument is to be sought in Free Trade dogma. It has been throughout my exclusive concern to base the case against dear steel only on the concrete facts of India's industrial experience and of her present equipment for the industrial struggle. G. P.

## STEEL AS A FACTOR IN INDIA'S PROGRESS.

The Tariff Board was appointed by the Government of India on the recommendation of the Indian Fiscal Commission. It is engaged in an inquiry into the desirability of according protection to the indigenous steel industry in India. It is my object to voice, however inadequately, not the view of any particular, specific, interest as to the merits of the exclusion of imported steel and the encouragement of the Indian steel manufacturer but rather the mean of the opinion which, in the Calcutta economic watershed at least, results from blending the views of all the many conflicting interests involved in a proposal to place a tax on imported steel. The ascertaining of this general, average opinion was, I take it, the task which the Fiscal Commission desired to see assigned to the Tariff Board. The criterion which the Commission supplied for the Board's guidance in the case of difficult claims to protection was to the effect that the concession of protection "should result in a net economic advantage to the country." In the case of basic industries the decision, in the opinion of the Tariff Commission, should rest rather on considerations of national economics than on the economics of a particular industry." The Fiscal Commission spoke in its report of a "Tariff Board of unimpeachable integrity and impartiality, upon which will be laid the duty of sifting with the utmost care the claims of industries to protection and insisting that the necessity of protection should be fully proved." The Commission predicated "perfect frankness and lucidity" in the statement of the case for and against the protection of a branch of Indian industry "so that the public may be in a position to form its own judgment." It demanded that, if and when any modification of the tariff occurred, such modification should be "in the interests of the country." The practical problem, the Commission said, was to devise a stimulus which would bring in the end "a gain to the country as a whole greater than the immediate loss." It deprecated the exclusion of imported coal on the ground that such exclusion would not be in the interests of "the country as a whole" and it stipulated that initial mistakes should "not be perpetuated at the cost of the community." Protection was to be discriminatingly employed along the lines indicated in the report and the Commission defined indiscriminate protection as being such protection as "would entail a sacrifice out of proportion to the results." Thus the attention of the Board was specially directed by the Commission to the necessity for striking a balance between the claims of interests which, as the Commission clearly foresaw, and admitted, might conflict; and, in general, a balance between good and evil, gain and loss. Where the issue was in doubt, the controlling factor in the Board's decisions was to be always the consideration of the general good rather than the claims or ambitions of a particular interest.

For the estimation of the net effect likely to be produced, on balance, on the country's industry and trade by any given economic departure Calcutta

Calcutta's  
unique  
point of  
Vantage.

The twenty-nine pages which follow constitute the text of the written evidence submitted to the Indian Tariff Board on November 9, 1923, by Mr. Pilcher in connection with the Board's inquiry concerning the desirability of affording protection to the indigenous steel industry in India. At present only one Indian concern, the Tata Iron and Steel Company, with a total operating capital of some 20 crores of rupees, is engaged in the manufacture of steel in India. Iron ore yielding over sixty per cent. of pure metal occurs in Bihar and Orissa in almost limitless quantities and in the near proximity of coking coal and fluxes of at least moderate quality.

affords an unique point of vantage and one which justifies its claim to be treated with consideration and respect. A great port of entry and departure and of enterpôt trade, it provides the machinery for the movement of two-fifths of India's entire foreign commerce. Its share of that commerce is valued annually at some two hundred crores of rupees. To the Customs receipts of the Government of India yielding 56 per cent. of Indian Revenue under "Principal Heads," Calcutta yielded 16 crores, out of 42 crores shown in the revised Budget of 1922-23. Within the economic watershed immediately served by Calcutta are situated the whole of the country's jute mills and presses employing some 350,000 workers and practically the whole of its collieries employing some 220,000 persons. Together these two industries alone provide employment for nearly one-third of the entire total (1,750,000) of India's organized industrial workers. In addition Calcutta has within her immediate sphere of influence the whole of the partially industrialized tea industry with its 300,000 employees and in workshops such as Jamalpur, Khargpur, Lilloah and Kanchrapara—nearly one-third of the railway workers, numbering 150,000 who, after the cotton, jute and coal industries, contribute the fourth largest quota to the body of India's industrial labour. Further, in the now extremely varied yards and workshops devoted to the furnishing of the port and the production of railway waggons, of agricultural, colliery and textile machinery and implements, of cotton yarn and piece-goods, of paper, of tanned hides, leather and boots and shoes, of kerosene and petrol tins, of spare parts for the motor and other industries, of building materials, of flour, biscuits, milled rice and chemicals, there are to be found within the Calcutta sphere of economic influence a large proportion (between 150,000 and 200,000) of the miscellaneous workers who, with the cotton, jute, colliery and railway operatives compose India's all too slender resources in industrial labour and experience. Of India's 1,750,000 industrial workers nearly one-half are concentrated within a radius of two hundred miles of Calcutta. (With the variety and numerical strength of the industrial employees in the old Bengal Presidency may be contrasted the position of the Bombay Presidency where, apart from 280,000 workers in cotton mills and presses, only 90,000 persons are officially recorded as in industrial employment). The capital which formed an indispensable preliminary to the employment of the workers in the Calcutta industrial sphere was raised in Calcutta. Its supreme direction is still vested in this city in the hands of managing agencies which are themselves constantly engaged on tasks of commercial adaptation, adjustment and reconciliation which demand skill no less delicate than that which the Tariff Board is now itself asked to display. A single Calcutta agency firm may be engaged at one and the same time in several, or indeed many, of the following tasks: the management of collieries, jute mills and tea gardens, of works concerned with the production of machinery for the jute mills and collieries and of electric current for the latter, of saw mills which are engaged in the production of materials for utilisation in the tea trade, of cement, lime and stone quarries and manufactories contributory to the building trade, of a constructional department, of a boot and shoe manufactory, of a system of wholesale labour supply, of large up-country zemindaries, of light railways directly tapping the agricultural wealth of vast areas, and of the attendant import and export business, river equipment and so forth which is the natural concomitant of the possession of a total labour roll extending sometimes into the hundred thousand. Such firms—and there are several, the variety and magnitude of whose operations assume very large dimensions—present a microcosm of Indian industry and trade as a whole. For economic purposes each of them is India *in petto* and in the detailed architecture of their combined interests there may be seen in operation the thrusts and pulls and stresses which are at work in the greater fabric of India's trade and industry.

**Conflicting  
interests  
weighed by  
private  
Firms.**

At the present moment, on a superficial view at least, the colliery interests of such a firm appear to demand protection from an invasion of foreign coal. (I am for the moment referring exclusively to the narrow interests of these concerns viewed strictly from the point of view of the balance of gain and loss in their sale returns.) The interests of its paper factory perennially demand protection from foreign competition both in price and quality which, under normal conditions, no Indian paper factory has yet been able to withstand. Equally emphatically its saw-mill and boot and shoe interests appear to demand protection against the Venesta three ply box or the product of the Northampton factories. On the other hand, its jute interests are possibly—though doubtfully—neutral in the contest over the protectionist principle. Presumably raw jute will always make good its entry into foreign markets, although even by the jute trade there are dangers to be faced in the event of the adoption of any protectionist procedure by India, namely, that restriction of imports, by forcing up exchange, may place serious difficulties in the way of foreign buyers or that retaliation against India's manufacturers of jute bags and cloth may follow in the wake of India's tariff aggression against foreign steel or hardware or motor-cars. More decisively in favour of complete freedom of foreign importation are the interests of firms such as I have described which are concerned in the erection of buildings or the manufacture of machinery in this country. For successful competition with foreign contractors or indentors from abroad it is essential that all the raw materials of such operations shall reach the Indian domiciled firm at the lowest competitive price, c.i.f. Both from abroad, and within India itself—as those who know anything, for example, of the building trade in Calcutta, or the provision of colliery plant in the coal-fields, will agree—the competition is ruthless.

Yet it is to be observed that the conflict of immediate interests entailed by the operations of a single agency firm in Calcutta is far from being limited to considerations based merely on the probable maintenance of sales or output. General considerations of the stability or fluctuation of *exchange* may vitally impair all calculation of ultimate profit or loss which are based merely on the apparent cheapness or dearness of raw or finished materials. There is to-day in Calcutta scarcely a firm but regards the access of feverish prosperity in India's export trade which raised the exchange value of the rupee\* to 2s. 11d. in February, 1920. Nor are there many firms but regret the impulse imparted to dreams of manufacturing expansion in India by the relative cheapness of machinery and constructional cost which followed in the wake of that movement of exchange. Similarly the mature judgment of the composite trading body, is conditioned by considerations of the efficiency and adequacy of the country's *railways and ports*. The export trade in Indian coal was destroyed, perhaps beyond recovery, by the inadequacy of railway facilities in 1921. In the previous year the outward trade in oil seeds was damaged by the same cause and cargoes of inward produce intended for up-country were in some cases returned to their port of origin for the same reason. Considerations of the temporary potentialities of the Indian *labour supply* in any given area may similarly deflect a firm's judgment and commitments, while such factors as the course of the money market, the burden

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\*The unit of Indian currency is the silver rupee, of which the stabilized value during the decade preceding the war was 1s. 4d. To-day the exchange value of the rupee slightly exceeds that figure. For purposes of public accounting the unit is one lakh of rupees or one crore of rupees. One lakh is one hundred thousand; while one crore is one hundred, hundred thousand, or ten millions. The normal value of one lakh of rupees is £6,666 and of one crore of rupees, £666,666. To reduce crores of rupees to terms of millions sterling, multiply the number of crores by two and divide by three. Thus *thirty* crores of rupees equals, roughly, *twenty* millions sterling.

of taxation, the absorptive capacity of the consuming markets and even the economic health and political contentment of the masses are never absent from the calculations of those responsible for framing a successful trading policy. Upon these broader considerations the attitude of a multiple trading concern towards a specific and particular trading departure may, in the ultimate issue, often depend. Hence some synthesis of all its multiple interests must always be attained if disaster is to be avoided. Some such synthesis of India's interests *vis à vis* the demand for the protection of the indigenous steel industry appears to be imperatively necessary at the present moment. There seems to be a real danger lest the general good may be subordinated to the clamant appeals of interests unduly obsessed by considerations of only temporary or partial or local validity and blind to broader motives of Indian policy. I propose first to enumerate some of the not inharmonious, though multiple, industrial and trading interests, which demand consideration in an effort to create that balance sheet of Indian profit and loss which the Tariff Commission postulated as the necessary preliminary to the protection of steel or any other manufacture. Thereafter I propose briefly to advance some of the more general considerations affecting the economic stability of the country which must, in the opinion of experienced observers, condition—and possibly preclude—the acceptance of the specific proposals for the protection of its steel industry which have recently been placed before the Tariff Board.

**The Ports :  
Steel Duty  
and struc-  
tural costs.**

The port of Calcutta—that is to say, the receiving and distributing machinery controlled by the Port Commissioners,—is, strictly speaking, itself a great industrial concern, still in process of development and still the prey of the economic competition maintained by its principal rivals. Dock-yard employees (public and private) were shown in the last abstract as exceeding 10,000 in Bengal while shipbuilding and allied engineering works gave employment to 11,500. The task of attracting shipping to the Hooghly has involved from first to last a block expenditure on land, works, etc., which to-day stands at approximately 20 crores. Large developments are even now in progress at the riverside jetties and the King George's docks, the object of the creation of which is the self-preservation of the port by the maintenance of its efficiency, and the postponement of the date, dreaded in the case of every industrial undertaking, when capital already invested shall in any sense become a wasting asset. Since the date of the commencement of the war enhancements of port dues have been necessitated by increased costs of materials and of labour and, in a measure, by fluctuations of tonnage using the port due to variations in the prosperity of staple trades, whether import or export. As regards the actual manipulative part of this importing and exporting machinery of the port of Calcutta the most obvious fact is that its chief component is steel. In the port itself all structural work is necessarily heavy. Where erection on steel piles has been found necessary some 70 per cent. of the total outlay on buildings may be ascribed to their steel constituents. Where, as in the case of the import and export sheds at the new docks, construction on solid ground is possible, some fifty per cent. of cost must still be assigned to the same item. In the construction of the four new riverside berths at Garden Reach no less than 31,777 tons of constructional steel were utilized. Even at the present costs of steel (some £11 per ton c. i. f. and duty) and at the present tariff rate of ten per cent. *ad valorem* the import duty payable on the steel utilized in this single item of port constructional work would amount to £35,000, while, under the prohibitive tariff on foreign steel demanded by the Jamshedpur interests, the duty charges would amount to some £116,000, or a surcharge of £80,000 over present rates. In the case of the King George's Docks now under construction and due for completion in 1927 or 1928 it is estimated that the price paid for

constructional steel, excluding duty charges, will approximate to 50 lakhs. In the over-all cost of these docks (6.29 crores) further large expenditure will be involved on cranes, lock gates, etc. Should it be found impossible to restrict the influence of the proposed protective tariff to steel only—as contrasted with machinery—the increment in the over-all cost of the new docks, would be rendered even more considerable than is apparent from the figure given. Nor is the outlay of the port authorities on steel limited to their constructional outlay. It bulks large in their expenditure on service vessels, on their shipbuilding yard and on their repair shops. From the foregoing it is clear that all proposals for the protection of the indigenous steel trade in this country are calculated to increase the cost of maintenance and new construction in the port of Calcutta, and to enhance both the block values of the existing plant and the sum annually set aside against its depreciation and replacement. To that extent all such proposals must retard the constructional development of the port and must contribute to the further enhancement of port dues which are already (e.g., in the temporarily extinct trade in export coal) by no means a negligible factor in checking the resistance offered by Indian-produced commodities to their foreign competitors. In cases such as that now presented by the competition of Natal coal with the Bengal commodity in Bombay the difference of a few annas more or less in the over-all transport costs per ton of Bengal coal may go some way to turn the scale in favour of the foreign as against the Indian product. On differential freight charges of a few annas, or at most of a rupee or two per ton, may turn the success or failure of a particular Indian industry in the whole foreign branch of its trade. Its success in that branch of its trade may involve for the ports the handling of many hundred thousand tons of additional merchandise per annum and the berthing in the port of many additional ships per month. Conversely, the failure of a single industry in a single branch of its foreign activities may have proportionately adverse effects on the ports. In 1920-21, when Bengal's coal exports were 1,142,608 tons, vessels clearing from Calcutta numbered 720, tonnage 2,225,000. In 1922-23, when coal exports had shrunk to 97,624 tons, vessels clearing from Calcutta numbered 492 (1,752,000 tons). In such a case not merely is the trade itself damaged and the prosperity of the port injured, but injury is sustained also by all those who, from contractors of bunker supplies upwards, are connected with the shipping industry.

Unfortunately the potentially adverse effects of high steel prices on the development and maintenance of the country's ports do not begin and end with structural considerations. Of the imports entering the country through the port of Calcutta in 1922-23 no less than 28 per cent. (23 crores) were referable (under value) to the headings Metals and ore (chiefly iron and steel), machinery and mill-work, Railway plant and Hardware. Indian imports as a whole present similar results. Out of a total importation for the whole of India in 1921-22 valued at Rs. 280 crores, no less than 81½ crores, or between one-third and one-fourth (in value) was supplied by machinery (35½ crores), iron and steel sections (21 crores), Railway plant (19 crores), and hardware (6 crores). Especially noteworthy is the fact that these particular imports representing as they do the demands not of the "consuming" classes but rather the capital expenditure of the great industries, are less sensitive to general economic depression than are the other principal items in the import list. Thus, while cotton importation declined from 36 per cent. of the pre-war total to 21 per cent. of that total in 1921-22, the combined iron and steel and machinery and hardware groups rose from 17 per cent. pre-war to 23 per cent. in 1920-21 and, in 1921-22 31 per cent. of India's total importation. In each of these items—which comprise three of the five largest classified contributions to India's import trade—steel bulks heavily and the effect likely to accrue to the trade of the ports from a prohibitive tariff on this

**The Ports :  
effect of  
Steel Duty  
on import  
Trade.**



great section of the foreign trade of the country must be considered in any attempt to assess the claims to preferential treatment of the Indian steel industry.

By the advocates of exclusion it is constantly assumed that the imposition of heavy Tariff duties on foreign steel—or, indeed, on any foreign commodity—will increase, or at least stabilise, the Customs revenue of the central Government and do the ports no harm. Even by the Tariff Commission it was apparently assumed that the imposition of customs charges on railway deliveries for the State railways, although it would reduce the profits of those railways, would be unimportant from the point of view of Imperial finance because the loss to the Railway Department would be made good under the heading of Customs. From the point of view of the administrators of ports and Customs it cannot be too clearly emphasized that the object, and the effect, of protective tariffs—if they are in any sense to produce the results anticipated from them—is to exclude imported goods. To the extent to which the tariff on steel is successful the inward tonnage utilizing the ports must tend either to arrive in ballast or to decrease in quantity and the Customs receipts from the schedules under discussion must decline. Unless the deficiency is made good by new branches of importation there must ensue a change in the proportion of export and import bills available whereby the country's foreign exchange must ultimately be affected to a degree which it is difficult to anticipate but which, if the disturbed balance of exportation remains excessive, must operate to the further disadvantage of the ports and to the ultimate detriment of the exporting community. This, in India, is composed in the main of the agricultural classes numbering over 200 millions to the predominance of whose claim to economic consideration the Indian Fiscal Commission made frequent allusion.

**Imports pay  
for Exports.** To India's imports at the present time cotton manufacturers contribute (1921-22) 21 per cent. in value and the iron and steel machinery, railway and hardware group 31 per cent. The decline of the former under the influence of protection—artificial, in the shape of duties, and quasi-natural, in the shape of high producing costs in Europe—has been prodigious in volume and its significance for the ports and the country's trade has been concealed only by the high money values temporarily prevailing. The number of yards of piece goods imported in 1921-22 was 1,079 millions as compared with an importation which, in 1913-14, amounted to 3,158 millions. The ultimate effect of that reduction on the inward freight market and on supplies of outward freight has been considerable and is likely to become more so. If the tendency towards the reduction of importation is now to be deliberately extended by means of hostile tariff charges on that large section of the country's foreign trade in which steel is either the sole or the main constituent the possible consequences demand serious consideration in advance. Together, cotton piece goods and the iron and steel group constitute more than one-half of India's total importation. Since the Sixties of last century India's foreign trade has been slowly and laboriously nursed upwards from a value of less than 90 crores until to-day it exceeds 500 crores. Throughout that long period of nearly sixty years the duties on iron and steel and machinery at no time exceeded five per cent., while for forty years they either entered the country free or at a nominal duty of one or 2½ per cent. *ad valorem*. The same policy was deliberately pursued in regard to cotton manufactures, with the result that these two great classes of importation became in a sense the exchange medium whereby the world paid India for the major fraction of her growing volume of exports, composed mainly of foodstuffs or raw materials. These importations formed, too, the economic magnet by which tonnage was attracted to and retained on the trade routes to India. On the basis of the prosperity reflected in the growth of her foreign trade India's population,

mainly in the agricultural sphere, underwent a large expansion. It is possible that, granted a marked diminution in the bulk of India's importation, the world would for a time still insistently demand her exportations of jute, raw cotton, hides, grains and, ultimately, even iron and steel. It is even arguable that, in time and at long last, the creation in India of factories devoted to the production of steel and machinery would, through the promotion of general prosperity and a higher standard of living, create a new and alternative demand for foreign importations, which would more than take the place of those now in danger of being destroyed. Unfortunately that vision relates to the future. It involves complex assumptions regarding the ultimate competence of Indian labour and the expansive capacity of the country's social system which need separate discussion. At the present time India has to face the fact that through her import trade she must make provision for the foreign payment to her of a bill for her own exported commodities which annually verges on 250 crores. If she fails to do so it can only be at the ultimate expense of her export trade and at the cost of endless suffering to the agricultural masses who, in a very literal sense, have been the creation and offspring of the economic policy which it is now proposed to subvert. (Sir Robert Giffen's figure for the population of India in "1815-21" is 136,000,000. The official figure for 1872 was 206,000,000 and for 1911, 315,000,000, since increased to some 320,000,000). The permanent reduction of importation in the iron and steel and machinery group on a scale parallel to that observable of late years in the cotton piece-goods section would result (more especially if accompanied in the export trade by a rapid expansion of iron and steel despatches) in the creation of a balance of trade so "favourable" to India—but in reality so excessive as against importing countries—that a high rate of exchange, involving further reduction of the world's already restricted buying power, would become all but inevitable. The sufferers would be the producers, manufacturers and exporters of India's agricultural output and semi-manufactured goods. Neither to the 96,000,000 agricultural workers in the districts, to their dependents exceeding 100,000,000, nor to the large population dependent upon the ports would any compensatory satisfaction accrue from the fact that commodity prices in the iron and steel and attendant industries were rising against them and that a few thousand factory employees were receiving good wages in Bihar and Orissa.

As is remarked by the compiler of the "Review of the Trade of India in 1921-22," the country's imports of iron and steel, machinery and railway materials themselves represent *capital* expenditure. They arrive in India not in response to the ephemeral demands of day to day or month to month consumption (compare the other two principal items in the importation list, namely piece goods and sugar) but to satisfy the necessities of the great constructive utilities and industries which, directly or indirectly, are themselves responsible for the maintenance of the trade of the ports in an external direction. "It seems regrettable," writes Mr. Ainscough in his able and impartial report on the conditions and prospects of trade in India (1922) "that at a time when India requires such large quantities of structural steel to make good the depreciation during the war and to build up her nascent industries, the cost of steel—the raw material of almost all industries—should be artificially raised as a result of import duties." Mr. Ainscough is here referring to the existing Customs taxation imposed for revenue purposes.

Of all these public utilities and industries the first in importance is obviously the railways. The problem of the precise influence likely to be exercised on railway development by a permanent increase in the cost of steel, and sooner or later, of every commodity into which it enters, is one

**Recent losses on the Railways.**

for expert and detailed presentation to the Tariff Board. I confine myself to drawing attention to the fact that in 1921-22, for the first time in their recent history the railways of India, in which are invested 645 crores of public money (necessitating an annual interest payment of over 20 crores) showed a nett loss after payment of interest, provision of sinking fund, etc., of nine crores. A loss of  $1\frac{1}{2}$  crores again appeared in the following year. This year receipts are disappointing and final receipts are expected to be below the actuals of 1922-23 although something is being saved on the debit side of the account by restrictions of expenditure, the wisdom of which is by no means certain. Losses made by individual railways in 1921-22 were, North Western, 4 crores; G.I.P.  $3\frac{1}{3}$  crores; Eastern Bengal,  $88\frac{1}{2}$  lakhs; M. and S. M. 61 lakhs, and O. and R.  $26\frac{1}{2}$  lakhs. In 1922-23 the loss on the N.W.R. was again at  $2\frac{1}{2}$  crores, on the G.I.P. at 90 lakhs and on the E.B. Railway at 62 lakhs. These unsatisfactory working results, as contrasted with the steadily developing prosperity of the period ended in 1914, were attributed mainly to the all round increase in constructional and running costs, although admittedly the parallel increase in the number and cost of personnel was an important factor also. Of 605 crores of State railways capital which were subjected to analysis by the Inchcape Committee 180 crores were invested in State-worked lines and 425 crores in those at present operated by the Companies. Of the entire total 242 crores is debited to expenditure on construction of lines and works, 111 crores to rolling stock, and  $34\frac{1}{2}$  crores to stores. In addition 224 crores represent "liability for purchase of main lines." From these figures it is difficult to assess the proportion of railway outlay, capital and recurring, in which steel plays a predominant part. It is clear, however, that of the total railway expenditure from capital and from revenue allotted for renewal purposes, not less than one-half is likely to be affected by a permanent tariff charge on foreign steel and—its inevitable concomitant if the purpose of the tariff is to be realized—a permanent tariff charge on imported machinery. At the present time capital railway expenditure amounts to 30 crores of rupees per annum under the Acworth programme. Under the heading of renewals from revenue the total expenditure should, for this and next year, be some nine crores. Before the last Railway Committee the Agent of the G.I.P. Railway stated that an expenditure of 40 crores would be necessary, on his line alone, to restore the pre-war condition of efficiency. Some ascertainable proportion of this outlay must be affected by a prohibitive tariff on foreign steel and I suggest that it is the Tariff Board's duty to afford the country the clearest possible indication of the annual monetary sacrifice involved to the taxpayers in any projected increase of duty.

Concrete  
example of  
Railway  
loss.

A faint indication of the increase in railway costs involved in any compulsion placed on the Railway Board or the Companies to purchase in this country at the present time, with the steel tariff standing at ten per cent., is afforded by the statement of the Railway Industries Committee that, on a purchase in India of 3132 railway waggons merely, the additional cost to the taxpayer would have been approximately half a crore of rupees as compared with the cost of the imported commodity. Were still greater protection afforded to the indigenous steel industry the disparity between foreign and Indian prices would necessarily become more marked, if only in view of the fact that the Indian manufacturers are dependent on foreign sources of supply for no less than eighty per cent. of their steel requirements. The retort of the steel interest naturally takes the form of an assertion that ultimately prices will fall despite the obvious fact that, for so long as the total Indian steel output falls short not merely of the total requirements of Indian consumption, but of the maximum variety of output demanded by those requirements, for so long can the competing steel producers in India maintain prices at or just below the foreign competing level determined by

the tariff. Yet the reduction of all forms of railway expenditure and the construction of new lines are the most urgent industrial necessities of the moment. Among the causes to which the Tata Company attributes the decline in its own profits is the enhancement of railway costs. Working expenses on the Indian railways rose from 29 crores in 1913-14 to 67 crores in 1922-23. The average cost of maintenance and renewal of existing lines per mile of permanent way rose from Rs. 1,035 in 1913-14 to Rs. 2,628 in 1922-23. The average cost of repairs and renewal both of locomotives and waggons rose above 200 per cent. per vehicle during the same period. The Inchcape Committee said: "It is, in our opinion, not practicable to make any great increase in rates and fares without adversely affecting the trade of the country." The Acworth Committee, like the Mackay and other Committees before it, descanted on the hopeless inadequacy of India's railway system to the country's existing trade potentialities. The Industrial Commission saw in intensive railway development the only possibility that India would obtain the "cheap supply of coal" which it declared to be the "foundation of future industrial progress in India" and it declared that "a cheap railway service is of nearly as great importance to industries as cheap machinery and it would be difficult to justify a high duty on railway materials if it were likely to raise the cost of the railway service merely in order to protect the manufacture of raw materials in India." India with its 320 millions of population and its vast extent possesses 27,000 miles of line as compared with 39,000 miles of line engaged in coping with the needs of Canada's 8,000,000 inhabitants and 29,900 miles of line for Australia's six millions. New construction will become imperatively necessary as soon as the existing 150 crore programme of rehabilitation is completed. The trade exigencies of the railway position are well illustrated by the fact that less than three years ago the then affluent Tata Iron and Steel interest was offering the Bengal-Nagpur Railway a loan of four crores to facilitate more rapid construction of new lines. At best the new capital requisite for the task of expansion will be obtained on the basis of five and a half or six per cent. interest now current for Indian loans in the city of London as compared with the basis of three or three and a half per cent. upon which much of the railways' existing capital was obtained. If the country's railways are not to become a wasting asset economy of outlay and expenditure is essential in every branch of the replacement and renewals programme. If new capital is to be raised on favourable terms for the much needed expansion the greatest economy of capital outlay is necessary. Nothing can be more certain than that, so long as railway deficits continue the recurring costs involved in the raising of new capital will rise as against India. In view of these desiderata, essential as they are to the rehabilitation of both Imperial and provincial schemes of taxation no less than to the progress of the country's industries, the present is scarcely the ideal moment for the adoption of a tariff policy which, whatever its ultimate benefits, must for years to come increase the cost of railway construction and maintenance. Considerations of the security of the taxpayers' past investment of 600 crores in the railway system should surely exercise a material influence when claims are made on behalf of a nascent industry the private investment in which still falls short of 20, and may never attain the limit of 100, crores.

It is sometimes contended that, granted the payment of Customs charges by all the State-owned railways as recommended by the Fiscal Commission, the State will not lose seriously because what it takes out of its railway pocket it will put into its Customs pocket. This contention illustrates the fundamental fallacy underlying the Fiscal Commission's assertion that, a high Customs revenue being necessitated by the country's financial exigencies,

**Customs  
charges on  
State Rail-  
way orders.**

the Customs duties may well be of a protective character. Protective Customs duties are designed to exclude foreign commodities. If they are successful in their aim the State revenue from Customs duties declines *pari passu* with the growth of internal industries and internal trade monopolies. For a time, it is true, the Imperial revenues would suffer a nett loss not greatly exceeding the surplus profit accruing to indigenous steel interests from the higher prices paid for that fraction of State railway material derived from their factories. Ultimately, however, as the proportion of railway materials derived from indigenous sources of supply grows larger, the excess profit accruing to those sources will become progressively larger while the Customs receipts accruing to the State will become smaller and smaller until finally the whole loss represented by the difference between prices before and after the imposition of a protective tariff will fall on the railway revenues—in other words on the Indian taxpayer and every industry utilizing the railways.

**Additional cost of public utilities.**

To give concrete examples of the increased burden likely to accrue from the enhancement of taxation on the raw materials employed in the construction of utilities is always difficult. An engineer of high reputation informs me, however, that the cost of the cantilever bridge of 1,500 feet span, 140 feet wide, the construction of which across the Hooghly, at Howrah, is overdue, is likely to be enhanced to the extent of from 30 to 35 lakhs if a prohibitive duty of 33½ per cent, is placed on raw steel merely and by 50 to 60 lakhs if the duty is extended to fabricated steel. Such an estimate is of importance to the railway administration in a country which *par excellence* (although by an unfortunate necessity) is the land of railway bridges. I submit that a flood of light would be thrown on the direct cost to the utilities of the country of the proposals for the prohibitive taxation of foreign steel, if precise estimates were obtained of its incidence not merely on the annual railway programme but on the following projects:—

(a) the not yet matured, though most essential, scheme for a Grand Trunk Canal in Bengal;

(b) the scheme for a Calcutta tube railway originally estimated to cost £3,500,000;

(c) the proposed East Indian Railway bridge across the Hooghly at Bally;

(d) the Sukkur Barrage scheme now being initiated at an estimated cost, under the existing tariff, of some 20 crores;

(f) the third and latest of the hydro-electric schemes now undergoing development in the Western Ghats, to assist the promotion of which the Tata interest has recently acquired £1,750,000 from the State-guaranteed and London loan market;

(g) the Khyber railway scheme, the rails of which are to be laid next year; and

(h) in retrospect merely, of certain existing works such as the

Hardinge bridge across the Ganges.

**The Jute Trade.**

By such means a certainty of prospective loss will ensue which will be eloquent of the sacrifices necessary in order to secure the so called "national" advantages of a prospective proposal.

The probable reaction of the proposed tariff on the port of Calcutta regarded as the inlet and outlet for two-fifths of India's foreign trade value, at 200 crores has been briefly noted under the heading of port administration, foreign importation of steel and steel commodities, and railways. Of the export industries represented in the trade of the port that

concerned with the handling of raw and manufactured jute is the largest— as, indeed, in 1921-22, it was, in point of value, the largest of the items contributory to India's annual statistics of foreign trade. Bengal's exports of raw jute were valued in 1922-23 at  $21\frac{1}{2}$  crores. Her exports of manufactured jute were valued in the same year at  $40\frac{1}{2}$  crores. Together these items constituted, in value, 55 per cent. of the outward trade of the province, or 24 per cent. of the export trade of the whole of India, cotton following next with 19 per cent. Doubtless the export of raw jute, as of all other purely agricultural products, would be affected only in indirect fashion by a rise in the cost of steel. On the jute manufacturing industry of Bengal, on the other hand, the effect of steel taxation would be direct and immediate, as well as indirect. The capital invested in the 51 jute mills on the Hooghly exceeds 50 crores composed as follows: Ordinary fully-paid capital, 14 crores; debentures, 4 crores; preference shares,  $4\frac{1}{2}$  crores; reserves and other funds (the bulk of which at the present time is in liquid or semi-liquid state) 30 crores. Looms in the 51 mills number 44,000 which, at pre-war costs of construction, must have involved the expenditure of 26 crores of rupees on buildings and machinery and at to-day's cost would involve the expenditure of 40 crores on buildings and machinery. At least one large mill, laid down when the price of materials was at its zenith, cost its promoters Rs. 20,000 per loom operated, as compared with the pre-war estimate of Rs. 6,000 per loom operated and to-day's estimate of Rs. 9,000 per loom operated.

In the jute trade it is, I believe, the custom, dictated by long experience, to divide the value of mill block into two shares—one-third of outlay being assigned to buildings and two-thirds to machinery. The total value of existing plant affected by an enhancement of steel costs may therefore be assessed at two-thirds of a sum midway between 26 and 40 crores. It was, as I believe remains, the ambition of the jute industry on the Hooghly to maintain a steady ten per cent. increase in the number of looms operating on the river. New construction should therefore, given healthy conditions, be maintained in the region of 4,400 new looms per annum. Calculated on the basis of the over-all capital expenditure now necessitated by the erection of new mills, namely Rs. 9,000 per loom ultimately operated, that rate of new construction would entail the annual expenditure of some Rs. 4 crores per annum, of which two-thirds, or  $2\frac{2}{3}$  crores, would be assigned to machinery mainly of steel composition. Since the war at least two plants have been laid down in India for the manufacture of this machinery. Granted the proposed protection of steel these and all such enterprises for the manufacture of jute mill machinery must necessarily be afforded a protection of their interests proportionate to that assigned to the steel industry or be compelled to close down.

To contend that, because the jute mill industry has enjoyed a prosperous decade, it should be taxed in its capital and replacement outlay in order to assist in the foundation of another industry, is, from the economist's point of view, puerile. The Indian jute mill industry established itself in the teeth of advantages enjoyed by Dundee—advantages the equivalent of those enjoyed, thanks to their long start, by the Lancashire cotton mills as compared with those of Bombay. Many of the earliest jute mills companies were reconstructed at great cost to their promoters and some stood idle for years. As recently as 1912 the jute mill industry paid an American organiser a large fee to examine its then imperfectly organized industry with a view to acquiring, through his investigations, the secret of consistent profit making. It is open to serious question whether, during its earlier period of struggle, the natural advantages enjoyed by the jute mill industry were, in view of India's then backward condition, superior to those enjoyed to-day by the indigenous steel industry. After periods of fluctuating fortune

success was eventually achieved by means of drastic economy of management, the husbanding of reserves, the training and nursing of labour derived from great distances and by trade combination. If war-time prosperity played its part in the ultimate success of the jute industry the steel industry in this country can point, in the first decade of its existence, to equal prosperity under war conditions and to comparable profits during the same period. Those jute mills companies which were projected or constructed—as several were—on the basis of machinery costs prevailing in 1919 and 1920 have only their own imprudence to thank for their present position and their promoters recognize the fact and refrain from appealing to public charity now that their position is becoming apparent. It should be added that, secure though the fiduciary position of the mills undoubtedly is, the margin of profit on the four days' working week now prevailing is by no means such as to permit of the reckless taxation of the industry in the interest of other capitalist enterprises, especially if such taxation takes the form of a Customs duty on machinery and building materials whether necessitated by new construction or replacements. The position of the Bengal jute trade is good but the considerations of national economy urged by the Tariff Commission suggest that its inherent soundness should be utilized in the interest of the maintenance of India's foreign trade balances rather than as the basis of economic experimentation in spheres with which it has no direct connection.

**Jute Trade:  
Statistics of  
probable  
Burden.**

As affording a concrete illustration of the effects likely to accrue to the jute industry from the taxation of steel and of machinery wherein steel is the main component I give the following carefully prepared statistics of constructional and other costs involved in the outlay of a single group: Total capital subscribed Rs. 3.47.50.000 (roughly, 3½ crores). Total original cost of block, much of it obviously financed from profits accruing in the course of development: Rs. 7.08.00.000 (slightly in excess of 7 crores). Total original cost of machinery Rs. 3.64.00.000 (Roughly, 2½ crores). Total original cost of steel-work in buildings, 60½ lakhs. On the basis of an annual allowance of five per cent. for depreciation, some 35 lakhs is now set aside annually from trading profits to provide for the deterioration of this plant. Of that amount more than half is on account of machinery and steel components of buildings. An easy calculation suggests the additional deduction from annual profits which would be entailed by any *ad valorem* increase of the import duties on foreign steel and machinery. Incidentally these figures suggest a caution against the assumption that the subscribed capital of a successful company necessarily affords an indication of the total capital involved in its operations and hence menaced by Tariff proposals adverse to its prospects. Judged by the group of jute mills to which the above figures relate the total investment forming the basis of the operations of the 51 jute mills on the river Hooghly is at least double their subscribed and paid up capital.

**Tea.**

In Calcutta's exportation in 1922-23 the second largest contributory item was tea. The total value of tea exports was 15 crores, or 13.3 per cent. of Calcutta's exports in point of value and 7 per cent. of India's total export trade. The tea exports were furnished by gardens possessing a rupee capitalisation of 5 crores of rupees (preference and ordinary shares) and reserves of 1½ crores, and, in addition, a large sterling investment. (For a group of sixty sterling companies whose statistics I have before me at the moment of publication, the total share and debenture capital amounts to £13,519,000, their combined block account standing at £13,190,000). The Indian tea industry, founded in 1840, has been responsible for the reclamation of some 700,000 acres from jungle and it gives employment to some 300,000 persons. It supplies—in keen competition with Ceylon and China—

some two-thirds of the total tea importation of the United Kingdom, although under stress of competition from the Java product it has recently lost its predominant position in the Australian market. Whilst the general progress of the industry has been steady and continuous, it has suffered severe temporary setbacks. So recently as 1920 a dividend was distributed by only 13 companies out of 136. The record of the sterling tea companies in that and the following year was equally deplorable. Every tea garden in Bengal and Assam is dependent upon machinery for the manufacture of its leaf and there appears to be complete unanimity among its promoters in resenting a prohibitive import duty on steel as a potential impost on their own capital and replacement outlay at a time when recovery is being laboriously achieved after a period of disastrous losses. At least one engineering concern, for long associated honourably with the supply of tea manufacturing machinery to the gardens, is threatened with heavy loss on its Indian investments in the event of the imposition of a prohibitive tariff on steel. The only visible alternative to its severe penalisation is an increase in the tariff charges on such machinery as it exists to provide. The effect of such procedure on the tea industry would be even more disastrous than the mere compulsion placed upon it by a heavy steel duty to resort for its requirements exclusively to European manufacturers.

In the list of Calcutta's exports the semi-industrialised trades in jute and tea bulk large. They contributed in 1922-23 no less than 69 per cent. of the outward trade of the port in point of value. Of the other considerable items in the list, namely, lac, grains, seeds and hides, contributing among them over 20 per cent. of the port's total export trade, all are "agricultural" in character and the same is, for the most part, true of the items which together compose the remaining eleven per cent. of Calcutta's foreign exports. In the whole field of Indian exportation the facts are not dissimilar except that the jute and cotton trades supplied respectively (in 1921-22) 24 and 19 per cent. of the whole (248 crores) followed by hides 12%, seeds 8%, tea 7%, grains 5%, and a miscellaneous remainder 25%. The possible influence of dear steel on this colossal agricultural industry will demand consideration later.

Meanwhile there calls for treatment an important trade, essentially industrial in its aims and organization, which in the past has bulked considerably in the outward commerce of Calcutta and the inward commerce of Bombay, Madras and Karachi, and which itself constitutes, together with iron and steel, an all important factor in the basic process of distribution. "An abundant and cheap supply of coal," wrote the Indian Fiscal Commission, "is the foundation of future industrial progress in India . . . This is one of those cases in which we are convinced that the protection of the basic industry or raw material would not be to the advantage of the country as a whole. Cheap coal is essential to industry and *we are not prepared to recommend any measure which will make coal dearer.*" India's coal supplies are derived in the main from the two coal-fields in Bengal and Bihar and Orissa. In the five years preceding the war India's reliance on imported foreign coal was limited to an annual average of 427,000 tons or 250,000 less than the average annual exportation of Indian coal. In the same five years the average annual production of coal from Indian pits was 15½ million tons, slightly less than which quantity was actually consumed in this country. The average value of a ton of Indian coal at pit's head in the pre-war year was Rs. 3-9. By 1919 the annual output of coal from the Indian pits had risen to over 22½ million tons, in part owing to the disappearance of competing foreign supplies—these in 1919 had fallen below 50,000 tons—but in part also to the growing demand for coal proceeding from the railways and indigenous industries. Of the 22,500,000 tons produced in 1919 only half a million tons left the



country. The large balance, *plus* the insignificant foreign importation already mentioned, went wholly into domestic consumption. The result of the steadily expanding demand was a considerable rise in average pit head prices from Rs. 3-9 in 1914 to Rs. 4-8 in 1919 and an almost panicky apprehension, nowhere more prevalent than in official circles concerned with railways and industries, of a serious shortage of coal supplies in the near future. This apprehension was emphasised by the inability of the railways, greatly impaired as their efficiency and carrying capacity had become as a result of the war's depredations, to cope with the traffic demands both of a coal output enhanced by some thirty per cent. in six years and of an indigenous industry then showing apparent signs of rapid development. The immediate result was a stiff rise in the price paid for coal deliveries. Long term Railway Board contracts provided for the average payment of from nine to eleven rupees for first class coal as compared with a third of that price before the war. The Deshargarh quotation in Calcutta which, at the opening of 1914, had stood at Rs. 6-8 per ton and which still stood in 1919 at a similar figure, had risen in the early part of 1921 to Rs. 17-8. In Bombay the parallel rise—assisted by a cent. per cent. increase in the pre-war freight charges of Rs. 5 per ton, Calcutta to Bombay—had been from Rs. 16-8 to Rs. 38.

**Rise in cost  
of Railway  
Coal.**

On the railways, whose coal consumption in 1922-23 exceeded six million tons, or nearly one-third of the entire output of the Indian coal-fields, the result of rising prices is seen in the fact that the average cost per ton of coal utilised on the broad gauge railways rose from Rs. 10-8 in 1913-14 to Rs. 16-6 in 1922-23 and on the metre gauge lines from Rs. 13-5 to Rs. 23-7 per ton. In the present year the railway's coal supplies, even allowing for an "arbitrary cut" of one crore of rupees on Agents' demands are estimated to cost  $8\frac{3}{4}$  crores, as compared with a total cost at engine shed in 1913-14 of  $5\frac{1}{4}$  crores. As regards the small, new industrial concerns which, to the number of nearly one thousand, sprang up at this time in Bengal with a total authorised capital of 140 crores, it is certain that the enhanced cost of coal and the extreme difficulty of obtaining it played an important, if not a decisive, part in the fate of those companies, some three-fourths of which are now already dead or seriously moribund. Among the causes to which their decline of profits is attributed by the Tata Iron and Steel Company is to be found precisely this rapid enhancement of coal prices—in their case from Rs. 4-2 per ton in 1916-17 to Rs. 9-3 in October 1922—from which they in common with all other industrial undertakings suffered.

**Decline in  
Output.**

Unfortunately high prices entirely failed to produce the effect on coal output which it was hoped that they would produce. Production fell away from the maximum of  $22\frac{1}{2}$  million tons reached in 1919 to some 18 million tons in the following year, followed by a rise to 19,300,000 tons in 1921. Production again showed a slight rise in 1922 but a decline of raisings is now again said to be evident. The decline in 1920 was explained in part by the deterrent effect produced on colliery raisings by waggon shortage and inevitable transit delays and in part by the deterrent effect produced on labour by political agitation and the concession of higher wages. Writing in 1921 Mr. Ainscough asserted that the "output of the Indian collieries had declined steadily *pari passu* with each advance in wages" and that the "essential industries" of the country were suffering severely from curtailment of their normal supplies. The effect of this reduction of output on domestic prices for coal was enhanced by a sudden revival of the foreign export trade in 1920 to a figure of  $1\frac{1}{4}$  million tons valued at 157 lakhs—the largest in the history of the Indian collieries. The extreme domestic shortage led to a total official prohibition placed on the export of Indian coal (now, it is true, removed but still operative owing to high costs of production

and transit to the chief sources of foreign demand, namely Ceylon and the Straits Settlements) and to the re-appearance, in Indian markets, on a scale never contemplated since the Eighties of last century, of foreign coal. The importation amounted in 1921-22 to 1,489,282 tons (of which Bombay took 1,116,000 tons) valued at 578 lakhs of rupees (nearly 40 rupees a ton) and in 1922-23 to 881,810 tons valued at 309 lakhs of rupees. During the first six months of the current year foreign coal importations amounted to 337,258 tons valued at 94 lakhs. Natal has been, and remains, a leading beneficiary of this Indian coal shortage, her imports amounting to 339,000 tons in 1921-22, to 253,720 tons in 1922-23 and to 143,000 tons in the first six months of the present year. The United Kingdom's share amounted to 700,000 tons in 1921-22 and 500,000 tons in 1922-23. Of the dear imported coal the main consumers have been the Bombay mills—which, aided by a 7½ per cent. nett protection against the foreign piece-goods manufacturer, have shifted the incidence on to the Indian consumer of piece-goods—and the railways. Allowance must be made for the utilisation of the dear imported coal in considering the figures of increased prices for railway coal quoted above. The Incheape Committee, from whose Report those figures are taken mentions that in 1921-22 imported coal used on the G. I. P. Railway cost Rs. 52.75 per ton delivered at the engine shed as compared with Rs. 14.47 per ton for Indian coal. Recently the Bombay mills have been paying between Rs. 26 and Rs. 29 per ton for Natal coal, whose successful competition has been assisted by a special freight concession of seven or eight shillings a ton made by the Natal Government over its land lines.

The inability of the Bengal collieries to compete in Bombay at the prices mentioned is eloquent of the unsatisfactory nature of the Indian coal position at the present time. The price in Bombay before the war of a sea-borne Bengal coal superior in quality to that now arriving in Bombay from Natal was from Rs. 12 to Rs. 15 a ton. Pit head prices in the coal field have trebled and, to a large extent at least, they reflect enhanced cost of materials, labour and overhead charges. Freight charges from the coal field to the Calcutta docks have risen some fifty per cent. Port charges are higher and the steamer companies' freight rates (Calcutta to Bombay-Karachi) have risen from the pre-war figure of Rs. 4 or Rs. 5 per ton to Rs. 10.8 to Rs. 8 (according to Collector of Customs' last report). Owing to the exigencies of their own unsatisfactory financial position, the railways profess themselves entirely unable to restore the pre-war concession for "export" coal and even the prospect held out to them of a total sea-borne traffic exceeding 3,000,000 tons per annum for foreign and domestic ports leaves them adamant. It is to be noted that the problem of the success or failure of the Bengal collieries in their competition with foreign coal in Bombay turns on a difference of at most Re 1.8 a ton. Granted a flat rate railway freight of Rs. 2.8 a ton from all the coal fields to the Calcutta docks (as compared with Rs. 4.3 and Rs. 3.12 now prevailing in the case of the two principal fields) and foreign coal would disappear to-morrow from the Bombay market. This would operate to the great advantage of the Indian collieries—who would much prefer a natural expansion of markets and output to the precarious official patronage on which their prices, and their limited prosperity, still largely depends—and of the Indian railways, of the port of Calcutta and of the Bombay merchant.

The official list of joint stock colliery companies at work in India on March 31, 1921, included 236 companies with a total authorized capital of 16 crores, of which some 9½ crores were paid up. The reserves of these companies amount to at least 7 crores fully employed in the process of development or in providing banking facilities, etc. A concrete example taken from the statistics of a large operating group will best show the

**Rising Cost  
of Production.**

**Concrete  
statistics of  
Colliery  
costs.**

position of these companies. The group in question has an ordinary and fixed interest capital of 148 lakhs. From first to last it has expended 405 lakhs on its block (original cost). Of that block expenditure, 123½ lakhs was devoted to machinery. The total raisings in an ordinary year are in the vicinity of 1½ million tons. Depreciation is allowed at the rate of ten per cent. on ordinary and 7½ per cent. on electrical machinery, calculated on original costs. The total depreciation to be provided from working profits is therefore 12 lakhs, representing some 11½ annas per ton of coal raised. If the cost of replacing colliery machinery is to be artificially enhanced by serious tariff differentiations against foreign steel, block revaluation will become necessary in the case of every colliery company and, concurrently with such revaluation, the depreciation allowances made from trading proper will necessarily undergo enhancement. A 33½ per cent enhancement of replacement costs under the heading of machinery in the multiple concern described would entail an additional annas 3·81 per ton on raising costs for depreciation alone, apart altogether from the purchase of machinery for extensions, repairs and renewals which, as is proved by the difference between total paid up capital and total original cost of block, is always in progress.

Effect on  
Colliery's  
Capital  
costs.

Of the precise effect likely to be exercised by high steel prices on capital development in the older coal-fields and in the vast new coal areas awaiting development it is difficult to speak with precision. The figures given above prove that of total outlay on colliery development over a long term of years nearly one-third has in the past been devoted to the purchase of machinery. At the present time and in the future the proportion is growing, and may grow increasingly, larger. Costs of machinery and constructional steel are themselves higher than ten years ago and no lesson of recent colliery development in India is clearer than that large scale success can be won only by the large scale development of mechanical processes in substitution for, or at least as a supplement to, the increasingly unsatisfactory labour supply. No one in the coal field believes that, for many years to come, it will be possible—quite apart from the question of cost—to rely on Indian steel factories for all the multitudinous contributory details of cutting, hauling, winding and despatching plants. To rely at the present time on Indian steel for even a modicum of colliery requirements entails an infinity of delay, of waste and of exasperation. Meanwhile colliery expansion in India must proceed and costs must be reduced unless the existing stagnation of railway and industrial development is to be prolonged indefinitely. As the Indian Fiscal Commission clearly saw, the colliery industry is "basic" to a degree which is denied even to the railways and the ports, and much more to the steel industry. Steel can be procured from Europe with facility, and, at the present time, at prices which compare favourably even with pre-war prices, in the quantities demanded by India, whose consumption in a single year under the heading Iron and Steel has rarely exceeded one million tons. On the other hand India's coal consumption is already in the vicinity of 20,000,000 tons as compared with some 16,000,000 tons in 1914 and prices are at a level which imply the perpetual starvation of industries and of the domestic consumer and the imposition of an inordinate burden on the railways and general industry of the country, to say nothing of the fact that such prices facilitate the successful competition with Indian coal, of coal from ports some hundreds, or even thousands, of miles distant. India, in the words of the Fiscal Commission needs an "abundant and cheap supply of coal" above every other industrial desideratum. Next in importance to that necessity comes the need for railway expansion and it is a peculiarity of the Indian problem that neither colliery nor railway development is possible unless the two proceed in strict co-ordination with one another. To retard or jeopardise

either of them in the interest of the development of a raw material, however, important, would be to defy the clear injunction given by the Fiscal Commission and to disregard the warnings as to the inadequacy of India's coal supplies and transit facilities which have proceeded from so many first class authorities during recent years. If India can once again be assured of cheap and plentiful coal and adequate railway facilities, her economic future is safe. So far as concerns the *material* side of India's equipment the time will then be fully ripe for the energetic development of mineral resources whose large scale exploitation under existing conditions can apparently be achieved only at the cost of prodigious sacrifices to all pre-existing economic interests.

In considering the effect on colliery development of the encouragement of the indigenous steel industry allusion must be made to the fact that the Tata Iron and Steel works are already utilising one and a half million tons of coal in the production of iron and steel. Apprehension undoubtedly exists in the coal field as to the effect on coal prices of the closing down of the Tata concern and the sudden "dumping" of its coal consumption on to the Indian market. Temporarily, the effect on prices would be serious from the point of view of the colliery interests although it is not less certain that industry in general would stand to profit by the fall. Undoubtedly this is not the kind of "development" by which it is desirable to bring about that reduction of fuel costs and railway maintenance which Indian industry sadly needs. The ideal method is the provision of ample railway and port facilities conducive to the development of new coal markets, the steady expansion of colliery output and the cheapening of raising costs by the progressive utilisation of labour-saving process. By such means the welfare of the coal industry and of the consuming public will undergo parallel development. The sudden contraction of coal consumption, on the other hand, would involve a benefit to a large fraction of the consumers at the expense of a smaller fraction, and of the whole colliery industry. In the general interests of the coal trade, however (no less than of the country's industries as a whole) it appears infinitely preferable to face an immediate contraction of consumption by 1½ million tons than to sanction a perpetual tax on colliery and railway interests at the behest of a single enterprise—unless it can be proved beyond shadow of doubt that such enterprise can speedily become self-supporting at a negligible cost to the community.

Tata Com-  
pany's Coal  
consumption.

The return of large industrial establishments in India (1923) gives particulars of engineering works under at least four different headings. Under the heading, Minerals, Bengal is exhibited as giving employment to 10,000 persons (cf. 5,000 in the case of Bombay) under the sub-heading, "Iron and brass foundries." Under the heading, Transport, Bengal is shown as giving employment to 52,000 persons (c. 38,500 in the case of Bombay) under the sub-heading, Dockyards, railway workshops and ship-building and engineering works. Under the heading, "Processes relating to "Wood, stone and glass" Bengal is shown as employing some 4,000 workers (cf. Bombay, 1,100) in motor repair workshops. Finally, under the heading Miscellaneous, Bengal's general engineering workshops are shown as giving employment to 21,000 persons (cf. 4,000 in the case of Bombay). In all these shops and in many others in the long miscellaneous list which of itself accounts for 85,000 industrial employees in Bengal the entire factory procedure depends upon the employment of steel machinery. In many if not the majority, steel is also the raw material of which the factory's ultimate product is composed. By several of the latter class direct representations have been made to the Tariff Board with the object of safeguarding their immediate trading interests in so far as those are affected by the prospect of dear steel. Special allusion is desirable, however, to the group of 24

The Engi-  
neering  
Trade.

"engineering and metal works" which find a place in the list of companies registered, and mostly operating in or near Calcutta. These companies possess a combined paid up ordinary capital of rather over 3 crores. Their reserves, if the old established concern of Messrs. Burn and Company be included, exceed  $2\frac{1}{2}$  crores. These companies (excluding the few old established ones among them) are of interest mainly as constituting, together with a considerable number of miscellaneous concerns spread over the whole gamut of industrial activity, the last visible token of one of the most amazing booms in company-promotion of which economic history has record.

**The Great Boom.**

New flotations in this province in 1919-20 numbered 514 with an aggregate authorised capital of 103 crores. In 1920-21 they numbered 436 with an aggregate authorised capital of 36 crores. In Bombay new companies saw the light with a total authorised capital of 203 crores. In the two Presidencies together liquid capital or promises of liquid capital to the amount of £225,000,000 were forthcoming in two years for the purpose of industrial development. The Bombay flotations included a large number of banking, insurance and shipping projects framed often on a grandiose scale. The thousand new flotations in Bengal were mainly small industrial concerns, which aimed at the intensive exploitation of indigenous raw materials and the training and utilisation of indigenous labour, operating on modern principles with western machinery under foreign superintendence. For the most part the Bengal concerns—unlike many of those started in Bombay—either utilised their whole capital from the commencement or called it up before the futility of their efforts was realised. At the present time the great majority of the new miscellaneous flotations in Bengal are either incurring a daily and weekly loss by their operations or have already gone into liquidation. To obtain an appreciation of the reasons underlying their failure the Tariff Board could scarcely do better than invite as a witness one or other of the expert chartered accountants who are now everywhere engaged in the liquidation process.

**Miscellaneous new Companies.**

Possibly in every case the *causa causans* of the waste and disappointment resulting from the company boom in India was the disproving of the notion entertained by the promoters that war-time prices would endure and that one of the chief factors in producing them, namely State supersession of the ordinary processes of economical distribution, would in some degree at least be permanent. War time prices disappeared and the State itself was forced back on to a policy of strict economy which rendered impossible its artificial support of the new concerns, many of which had been brought into existence through its direct encouragement. The new concerns, although confronted by falling commodity prices and the absence of Government orders, found themselves at the same time the prey of rising labour costs, of greatly enhanced freight rates and of coal deliveries which were at once dear and uncertain. Money rates went against them when banking accommodation was desired and for many the high exchange rates of 1920 were alone sufficient to give them their quietus. A certain number survive but generally speaking experience has shown that no degree of application or skill can enable a company, once launched, to triumph over fundamental miscalculations as to the extent of its potential market, the cost of production and the course of prices. Splendid machinery may have been assembled and first class experts have been engaged but both are to no purpose failing that direct correspondence between supply and demand which is the basis of all successful trading. It is for this reason that the "one man concern" laboriously developed from minute beginnings and expanded only in response to definite opportunity, so often shows a resistance to commercial depression which is greatly superior to that exhibited by the ready-made factory

equipped according to the developed principles of Birmingham or Glasgow. It is to be observed that company failures in Bengal have proceeded from causes some of which are identical with those whereto the Tata Iron and Steel Company ascribe their decline in profits and there is at least a *prima facie* case for inquiring whether the original calculations—or in the case of the Tata Company the calculations underlying the war time schemes for “greater extensions”—were not equally at fault in both cases. Of the numerous companies liquidated in Bengal, it is to be noted that rarely has the smallest effort been made to save them. By way of example mention may be made of a company with a ten lakh capital and fifteen lakh block expenditure on some of the finest machinery ever brought to India. It has disappeared from the company list and I am informed that not a single offer of one lakh was forthcoming from a purchaser willing to operate it. The company's aims had no correspondence with permanent Indian industrial and economic conditions—costs, wages, markets, transit facilities and so forth—and only practical desuetude and abandonment met the case. Failing the certainty of ultimate achievement, accompanied by large rewards for intervening failure, the only economical policy was to “cut the loss” and cut it quickly. The case is not materially altered whether the guarantors of the concern be a private company or the tax-payers of a country. To justify industrial survival in such circumstances indisputable and independent expert evidence of the power to survive, and to survive under Indian conditions, is necessary. Meanwhile the sustained efforts now being made by the survivors of the industrial boom justify their insistence that no unnecessary additional burden shall be imposed upon them at the dictation of an undertaking whose difficulties differ from their own in degree rather than in kind. A prohibitive duty on foreign steel, unaccompanied by a compensating duty on the products of these small engineering firms, will go far to extinguish the last lingering hope that Indian industry may have derived some permanent incentive from the enormous outlay of capital during the period 1919-1922.

Of the interests which must necessarily be influenced by taxation **Agriculture** affecting the cost of that commodity which the Tata Iron and Steel Company describe as the “basis of our existing “civilization” and the “raw material of all industries,” detailed mention has still to be made of one, the greatest, namely, agriculture. The Indian Fiscal Commission spoke of its “predominant importance.” This it described as constituting the “outstanding feature” of India's present economic position. The Commission went further when it said that agriculture “is and must remain the foundation of the economic life of India, and this not merely because it furnishes the livelihood of three-quarters of the population. Indian industries cannot flourish without a prosperous agriculture. Agriculture is largely the provider of the raw materials for industry and the Indian agriculturist will offer the main market for the products of Indian industries. Any form of protection therefor which would seriously affect the industry of agriculture would go far to defeat its own object.” The Commission emphasized the fact that, at the census of 1911, the number of persons returned under the heading of ordinary cultivators, farm servants and field labourers and growers of special products was 210 millions, of whom 46 per cent., or some 96 million, were actual workers, whereas those employed in industrial establishments in 1919 were on the average only 1,367,000. The industrial workers were thus equivalent, the Commission remarked to not much more than 1 per cent. of the agricultural workers. The impress of these facts appears on every branch of Indian economics. With the exception of manufactured jute, constituting 35·87 of the exports of the port of Calcutta in 1922-24, there was scarcely another considerable

item in the Calcutta export list but fell within the description of "purely agricultural." Metals, ores and saltpetre contributed among them some three crores to a total of 100 crores. In the list of Indian exports for 1922 the sections "Food, Drink and Tobacco" and "Raw Materials" were represented by 155 crores out of a total exportation valued at 231 crores. Of that value all save some three crores referable to metallic ores, coal and liquors, was the direct outcome of agricultural industry. To the total of 66 crores assigned to "Articles wholly and partly manufactured" the great semi-agricultural industries of jute and cotton contributed nearly 46 crores and hides another 4 crores.

**The Agriculturist's Burden.**

Of India's total exportation in 1921-22 valued at 231 crores it is doubtful whether 23 crores, or ten per cent., could have been exported without the instrumentality of the agriculturist. He it is who, with truth, may be said to provide the medium which alone renders possible India's commercial exchanges with the outside world and on him must fall the loss and inconvenience of any violent disturbance of the existing adjustment of India's foreign trade. He, too, it is who, since the recasting of the financial system, sustains almost the whole burden of provincial taxation. Moreover, since he is poor—the average aggregate income of the agricultural classes is believed to fall somewhere between the extreme limits of Rs. 30 and Rs. 60—it is axiomatic that anything resembling a natural disaster or involving a sharp reversal of economic policy or implying a heavy increase of taxation charges must affect him closely and severely. To the steady reduction of land revenue charges and the elimination of the worst consequences of defective crops through the improvement of communications and the spread of irrigation he owes the relative prosperity which he enjoys to-day. His main hope for the future lies in the maintenance of land revenue charges at a low level and in the further increase of the nett return to his labour through the improvement of his methods of agriculture, through the continued spread of irrigation and through the opening of ever larger and brisker markets for his produce by the extension of the railway system. How, it may well be asked, is the prospect of dear steel calculated to affect the cultivating classes, whether its influence on their prospects be direct or indirect?

**Direct effects of Dear Steel on the cultivator.**

Under the heading of direct influence it is to be noted that from the primitive *kodali* and the tire of his bullock-cart to the steam plough and tractor, iron and steel are components in almost every implement of the cultivator's trade. In thousands of smithies throughout the country they are the raw material of every operation. In every district the agents of the Agricultural Departments, working against the odds constituted by rigid custom, are busy popularising the oil pumping plant and the mechanical plough, crusher, thresher, and tractor. That, given protection, the indigenous steel industry hopes to invade this market is proved to demonstrate by the existence at Jamshedpur to-day, under the wing of the Tata enterprise, of the subsidiary Agricultural Implements Company, Limited. Of the analogous companies subsidiary to the Tata enterprise one has already demanded a protective import duty of some fifty per cent, *ad valorem* against the commodity which it manufactures. This demand it has attempted to justify as a counter-balancing force necessitated by the proposed enhancement of the price of steel which constitutes the raw material of its operations. Nothing is more certain than that the artificial inflation of steel prices in India will prompt a similar demand from the Agricultural Implements Company—and, indeed, from all Indian domiciled concerns engaged in the provision or repair of agricultural machinery or implements—under menace of the certain alternative of their disappearance beneath the weight of European competition. Similar protection will probably be

demand by manufacturers of the galvanized sheets (corrugated) which, for every purpose connected with the construction of houses and farm buildings, are in demand from Peshawar to Dacca. Of this corrugated sheeting the imports totalled in 1920-21, 57,000 tons valued at  $2\frac{1}{2}$  crores; in 1921-22, 75,000 tons valued at  $2\frac{3}{4}$  crores; in 1922-23, 108,000 tons valued at  $3\frac{1}{2}$  crores; and in the first six months of the current year, 64,000 tons valued at 2 crores.

In a sense which is wholly direct the proposed exclusion of foreign steel may be expected to react with special disadvantage to agriculture through its effect on irrigational processes and canal construction. At the end of 1920-21 irrigation canals constructed under official supervision totalled 35,000 miles. The area irrigated in the previous year exceeded 28,000,000 acres. Works now under construction will add an additional 4,000,000 acres to the total while sanctioned projects (excluding the Sukkur barrage) will add another  $3\frac{1}{4}$  million acres. The area to be influenced by the Sukkur barrage exceeds the whole of Egypt in extent. The total capital hitherto invested in Government irrigation is £79,000,000. Between 1900-01 and 1920-21 the average expenditure on new irrigational construction totalled £1,750,000 a year. Although £19,000,000 of the capital expended has been sunk in protective and minor works, the nett yield to total capital invested was at the rate of nearly eight per cent. It is calculated by experts that some 25 per cent. of the whole cropped area in British India is benefitted and protected by Government irrigation works. In the vast area watered by the Indus and Sutlej the construction of perennial, as opposed to mere inundation, canals has scarcely been commenced. The sum of £10,000,000 could be laid out immediately in that area alone on the construction of permanent barrages, the main component of which would be steel constructional work. The only obstacle has long been found in the problem of financing the necessary capital expenditure. Every artificial increase of the expenditure necessary must delay *pro rata* the inauguration of those beneficent works.

Irrigation.

But it is in their general effect on the cultivators prosperity that high steel prices most urgently demand consideration. As was remarked by Mr. Peterson of the Tata Company in his general evidence before the Indian Fiscal Commission, iron and steel are the "raw material of all industries as without them practically no manufacturing plant could be erected and no efficient means of transport could be devised." Wherever and whenever the price of iron and steel has been artificially raised by fiscal exclusion and the artificial encouragement of home manufactures there has commenced a general rise in commodity prices and wages which sooner or later has compelled the country conducting the experiment either to embark on the intensive working of foreign industrial markets (as in the case of Germany and America) or drastically to restrict the population (as in the case of Australia and to a less degree in the case of Canada). If it be once conceded—as, in view of the basic nature of the iron and steel industry and its relation to all forms of transit and manufacture, I think it must be conceded—that a general advance in prices may ensue on its protection, then the effect of such a rise of prices in India must be considered in its relation to the interests of the vast mass of the people—of the agricultural classes numbering 210,000,000 and of the agricultural workers numbering 96,000,000. As was emphasized by the Indian Fiscal Commission, the "great mass of the people in India are poor." "We have throughout our inquiry borne this in mind," wrote the Commission. "Our general recommendations have been framed with a view to confining the sacrifice which must be demanded of the Indian consumer within the narrowest limits possible." Unfortunately

General Rise in prices probable.



the limits of the Indian agricultural consumer's purchasing power are already so narrow that there is no wide margin for additional sacrifice. Among the poorer and most numerous classes the cultivator and his family consume all or almost all the grain-stuffs which they grow or, alternatively, they exchange their raw textiles for food-stuffs the whole of which they consume. A general rise in prices will affect this class through the prices of its agricultural tools, the costs of renewing and repairing them and so forth at the smithy, through the prices of the scanty clothing which it can afford to buy, and through the increased dearness of brass, enamel and galvanized articles, the expansion of the demand for which is one of the clearest evidences of the slowly advancing prosperity of the humblest classes. Higher in the agricultural scale is the cultivator whose labour contributes directly to the production of that surplus of foodstuffs which goes far to account for the magnitude of India's foreign trade, or the returns from whose sales of raw fibre are considerably in excess of the sum required annually to provide himself and his family with the bare necessities of life. As regards the class which furnishes the surplus of grains it is to be remarked that, vast though it is, its output, regarded economically, is strictly a surplus. Of the grains produced in India it is believed that two-thirds at least are used for the satisfaction of the needs of the population in the immediately ensuing season while, world prices and transit conditions being satisfactory, one-third may find its way into the export markets. It will find its way thither in full measure only if the Indian crop is plentiful, if the price obtained in the previous season appears to the Indian cultivator to be sufficient, and if (in the case, *e. g.*, of cotton and wheat) Indian quality and prices conform to the world's demands. Almost all these desiderata depend for their progressive realisation on the improvement of Indian agricultural methods and the extension and cheapening of transport facilities.

Dearness of steel will go far to check the adoption of all enlightened agricultural devices. It will increase the cost of every repair and of every job done in the country's innumerable smithies. It will enhance the cost of transport over the long Indian land leads which count for so much in the competition between India's produce and that of countries whose commerce is mainly sea-borne. It will indefinitely retard the progress of irrigational development and enhance existing irrigation charges. It will tend further to lower the already declining standard of road and bridge construction due to restricted District Board resources and the great increase in costs of labour, and of materials, such as steam-rollers, etc. Finally, as already suggested, it may, through its operation in restriction of iron and steel importation, set up against the foreign importer and in favour of India so strong a balance of trade as to affect adversely to the foreigner the cost of the rupee exchange. If this happens Indian commodities will cost the foreign consumer more in terms of his own currency. In that event nothing can be more certain, in the present condition of the world's markets and finance, than a decline in foreign demand for the Indian agriculturist's output, for it may be doubted whether any economist would now seriously contend—as was contended three years ago—that whether the value of the rupee be fixed at 1s. 4d. or 2s. the foreign demand for India's staples will remain constant in the long run. As far as can be foretold, foreign demand would decline, the surplus of India's crops would decrease in magnitude and the prosperity of the surplus-producing class on which depends so much of India's chance of material and moral progress would be jeopardized. The harmful reaction of such a development alike on the progressive improvement of Indian standards of comfort, on the expansion of internal markets to which such improvement contributes and on India's foreign export trade would soon become apparent.

India's continuous progress, alike moral and material, is closely related to the prosperity of the middle and upper—or surplus-producing classes among the cultivators. On their prosperity depends the chance of modernizing the system of agriculture. On their prosperity and financial co-operation depends the hope of establishing a widespread system of education. It is difficult to perceive from what source they could hope to obtain compensation for detriment suffered under a régime of one-sided and premature industrialisation. If, through the attraction of population to the industrial centres agricultural workers would be relieved of the obligation of feeding many hungry mouths, it is not less true that the development of industry would tend to raise the cost of all hired labour and to promote standards of living which, granted a decline of agricultural prosperity, would be more than ever beyond the reach of the agricultural population. Viewed in relation to its vast mass, the agricultural population would be but slightly reduced although it might gradually be permeated by a discontent which, owing to lack of industrial aptitude and of educational opportunity, could only be very slowly transformed into contentment by the process of industrialisation. Before India proceeds to the drastic step of excluding cheap supplies of the "raw material of all industries" it were well that she should reflect on the fact that considerations of her future destiny cannot be divorced from considerations of her past history. As with England, so with India, long continued prosperity realized along fixed lines of development, has brought into existence a teeming population, whose necessities and interests and aptitudes cannot be ignored in any change of economic orientation.

The surplus-producing class.

The probability that loss and disturbance will be occasioned by higher steel prices scarcely demands discussion in view of the Tata Iron and Steel Company's description of their products as "the raw material of all industries." That it will be widespread demands no more convincing proof than the admission of Mr. Peterson on behalf of the Tata Iron and Steel Company in his note relating to "compensating protection." (Tata Statement No. XI). Already, he explains, one-tenth of his Company's output passes into the hands of the small industries such as blacksmiths and wheelwrights. "In the case of such industries," he admits, "a protective duty will increase the price of the article produced by the amount of the duty." That duty, also according to his admission, "will be borne by the ultimate consumer." The same conditions will apply, according to the same authority, whenever the article manufactured is "not commonly imported in standardized form and in large quantities," while in some cases in which large importation in standardized form proceeds *pari passu* with indigenous manufacture, a substantial handicap will occur which will necessitate the protection of the indigenous manufacturer on a scale "at least equal to the increase in cost caused by the duty placed on steel." In some instances it is hoped, under a régime of protection, to extract the steel manufacturer's additional profit from the indigenous operator's "very large margin of profit" but generally speaking Mr. Peterson admits on behalf of the steel interest in India that the consumer will pay—an admission in general accordance with the popularly accepted impression of the effect of protectionist duties on commodity prices.

Are there compensations for high prices?

Generally it is contended on behalf of those who advocate the protection of industries that its inconvenient effects will be more than counter-balanced by work for all at high wages. Apparently no claim such as this is advanced—save in very indirect form—by the existing steel manufacturing interest in India. The prosperity of the American steel industry is cited as an inspiration for India but, on the specific point of a wages advance even for the labour directly engaged in steel production, it is contended that

Wages to come down, not go up.

already wages in the industry are too high. Among the causes of the increased costs of steel production in India since 1916-17 Mr. R. D. Tata (see letter to Government of India, dated October 23, 1922) cites a rise in labour costs by over 50 per cent. "We are endeavouring, as the Government is aware," Mr. Tata proceeds, "to reduce wages at our works but we are faced with the same problem that to-day meets all Indian manufacturers, and the process must be gradual. Labour is not organized or educated in this country. We believe that it will be admitted by Government that the wages paid by the railways are at present too high, but that it is impossible to reduce them except slowly and by gradual degrees because any such proposal would involve an immediate strike." Evidently, therefore, the mass of consumers is unlikely to receive in India the form of compensation for high prices which is often dangled before them in protectionist countries.

**The  
Nation's  
Defences.**

Justification for the protection of the steel industry and the increased cost of living and production which it must entail is sought in other directions. Among them is the fact that iron and steel are the "nation's first line of defence" and stress is laid on the Indian Fiscal Commission's recommendation that favourable consideration shall always be given to the needs of nascent or growing industries which are essential to the security of the country. While the argument is an important one it is scarcely convincing as a plea in favour of the derangement and possible stultification of industries whose requirements were responsible in 1921-22 for some thirty per cent. of India's total importation and which, as is admitted, extend downwards from railway construction and bridge-building to the repair of the simplest agricultural tools. India has survived the greatest war in the world's history and the indigenous steel contribution to her own and the Empire's defence was limited during the whole war period to 290,000\* tons (cf. the world's total output:—1923, 74½ million tons; 1920, 68½ million tons; 1921; 11 million tons). At present India relies, and for at least thirty years to come, will continue to rely on extraneous help in the officering of her land forces. For the whole of her seaward protection she relies on a non-Indian Navy. While it is clearly desirable that India should ultimately be able to defend herself it is not less evident that the process of acquiring self-dependence must be fairly prolonged. There is thus no case, on grounds of defence merely, for the extortion from the consumer of excessive sacrifices to secure a possibly disproportionate advance in what, at most, is only one phase of India's ultimate problem of self-defence. If reasonable progress in the Indian steel industry is assured the requirements of the case will be fully satisfied.

**Rewarding  
the Steel  
Industry's  
Sacrifices.**

An attempt has been made to justify the special treatment of the steel industry on the ground of sacrifices already made by it in the public interest during the war, and of savings now being effected, and until 1927 to be effected, on public (railway) contracts extending to the delivery of some 90,000 tons of Indian rails and fish plates per annum. Whether or not the total of these benefits be valued at twenty crores or less, and whether or not it is true that good value has already been returned for a large proportion of them, they supply inadequate justification for the infliction of heavy burdens, in permanence, on particular branches of the country's industry. Based on present costs the steel importation of the country, even excluding machinery, railway material and hardware, may be valued annually

\*In cross-examination it was pointed out that this figure is an under-statement of the Tata Iron and Steel Company's steel production during the war. The figure probably relates only to the production of steel rails, the total steel production of the Tata works amounting to possibly 200,000 tons over and above the figure cited by me under misapprehension. The argument is scarcely affected by my unintentional error. (G. P.)

at not much less than 15 crores. Granted a tariff of  $33\frac{1}{3}$  per cent. *ad valorem* on this importation, the ultimate annual sacrifice to the country, if all the steel now imported be manufactured in Indian factories, will total 5 crores per annum. Other rates of duty will involve sacrifices *pro rata*. If the country's gratitude for past favours is to be the inspiring motive of the proposed protection it were better that it took the shape of a guarantee of Government orders, for a term of years only, the price paid to be based on strict costing processes in the factory concerned and to be limited to a maximum price for goods of the requisite quality.

In the main the arguments in favour of the protection of the Indian steel industry are based on allegations that foreign steel is being dumped in India at something less than cost of production in the country of origin and that the effect of this process, if prolonged, must be the elimination of the existing Indian steel industry and the destruction of almost the last hope of its reappearance. So far as can be observed this argument is based on little else than the fact that, while costs of production in India's only steel factory have risen steadily since the war in every branch of its activity, the costs of production of European steel producers have been subjected to the exactly opposite process. It is to be observed that, as recently as 1918 the directors of the Tata Iron and Steel Company believed that for the period 1920 to 1926 the price of Rs. 122-8 per ton (slightly over £8) would afford them adequate remuneration for the supply to the "Palmer" group of railways of 33,500 tons of rails annually, while a year later they were still content to conclude with the Railway Board a contract based on Rs. 130, or considerably less than £9 a ton. The average cost of rails produced at the Tata factories had risen in 1922-23 to Rs. 186 (some £12-3) but the price charged f.o.b. by the British and Belgian producers had meantime been reduced to a figure which bears a striking resemblance to that which, on Messrs. Tata's own previous calculation, was likely to prevail at the present time but which they now describe as a "dumping" figure. Both the reason and the means adopted for reduction of English prices may be sought in the speech of Lord Furness in submitting the accounts of the Cargo Fleet Iron Company for 1921. After referring to the fact that British steel selling prices were then at £8-10s. per ton as compared with £7 in 1913, and alluding to the increased costs of coal, transit and so forth, Lord Furness continued: "In the depressed state of trade that exists to-day we must stimulate demand by cheaper prices. Consequently the moral of these figures is that *very considerable reductions are imperative in the near future both in coal prices and railway rates* if our industry is to recover its position in the markets of the world." That policy has been pursued consistently in the chief steel producing countries of Europe. Labour, coal and transit costs, as well as wages and taxation, have been progressively reduced, while in India the process has been the reverse or, at best, the elements of cost have remained stationary at or near the inflated figures current during the war, or during the post-war boom. Between 1916-17 and 1922-23 the average cost of production of pig and scrap at Jamshedpur has risen in steady and unbroken progression from Rs. 29-46 per ton to Rs. 55-62 and during every stage of the process of converting iron into steel an enhancement of costs, greater or less, has been in progress. Thus during the conversion of pig into steel rails labour (producing) costs, which in 1916-17 stood at 13-99 per ton of rails produced stood in 1922-23 at Rs. 17; gas producers accounted for Rs. 13-52 as compared with 5-51; steam for Rs. 7-86 as compared with Rs. 2-42 and interest charges for Rs. 17-02 per ton of steel, as compared with Rs. 2-71. The "all in" cost of rails rose from Rs. 110 in 1916-17 to Rs. 186-75 in 1922-25 or Rs. 175 if allowance be made—as it should be—for the long strike. In July, 1923 "all in" prices

"Dumping." Is it in progress?

Rising Costs in India.

were still rising and stood at Rs. 179.39 per ton although no strike has recently occurred. The figures of world production which I have already quoted go far to disprove the assertion that over-production on a large scale is influencing the dumping of iron and steel in India's market, the restricted capacity of whose total importation (1913-14, one million tons; 1920-21, 711,000 tons; 1921-22, 612,000 tons; 1922-23, 746,467 tons) is obvious. The world's total output in pig iron was as follows:

## MILLION TONS.

1913	1920	1921
67½	60½	36

The world's output in steel (million tons) was as follows:

1913	1920	1921
74½	68¾	41

The world's exports of iron and steel were as follows (million tons):

1913	1920	1921
15½	11¼	8

The total mischief within Germany's reach—her manufactures are alleged to be serious contributory offenders *via* the Belgian ports—is suggested by the following figures of her total output:—

## MILLION TONS.

	1913	1920	1921
Pig	19	6½	7½
Steel	18½	8	9

In view of these statistics an almost grotesque character attaches to the assertion that India at the present time is "the one great dumping ground for steel by reason of its large demand." In general it may be said that, for three years past, the world's manufacturers have practised extreme restraint of their normal enterprise whilst adapting themselves to the vital necessity of the world's markets, *viz.*, a drastic reduction of costs of production. The Indian steel interest, on the other hand, persists in its programme of expansion at a time when, everywhere else, restriction of effort is being practised. If its demands are conceded now they will contribute to a further rise both in its own costs of production and distribution which are in every direction operating so adversely against India's economic recovery. Ordinary prudence suggests that the reduction of coal and transit costs should precede, and not be postponed to, the success of the indigenous steel industry. When such reduction has been achieved and the costs of Indian steel production have been reduced commensurately with it, the time will have come to consider whether the Indian steel manufacturer can face the blast of foreign competition or whether he needs for his assistance the adventitious aid of a high protective tariff.

**False Analogy of America.**

In this connection it may be noted that the Indian steel manufacturers' demands for protection are supported by ample references to the experience of the United States, which resorted to the protection of its steel producers in the early Seventies and has since become the greatest and among the most economical, of the world's steel producing countries. The two cases appear to differ from one another *toto coelo*. In 1871, the United States possessed a population of small proportions occupying an undeveloped country even vaster, and potentially far richer, than India. That population was composed of a hardy pioneering class inheriting great industrial traditions from its European past. It had already created in its own country a

tradition of universal and intensive education. It enjoyed the confidence of the European money markets in every branch of expansion and development which it undertook. To-day India's prime task is to feed the mouths of 320 million people who possess almost no industrial traditions, who are admittedly harassed by ancient customs in every effort to create such traditions and who are so poor that their prospects of attaining a system of universal education recede rather than draw near. The recurring costs of capital needed for railway expansion are high and the accommodation forthcoming in European money centres for such expansion is strictly limited. All the conditions which contributed to the expansion of American steel production from 1½ million tons in 1870 to 27,000,000 tons in 1910, appear to be absent in the case of India. During the first eleven years of the intensive pursuit of the steel industry in America the selling cost of American steel rails, fixed though it was wholly by American costs of production, had halved, although the duty against foreign steel remained at its original exclusive level. The result of eleven years of the manufacture of iron and steel in India has been to exhibit an alarming increase in the cost of manufacturing steel rails. Large reductions in works costs during the first five years of operation have been followed by more than corresponding increases which have raised the cost of manufacture by some sixty per cent, since 1916-17. Apparently costs were still rising in July, 1923. The times are exceptional, it is true, but it is difficult to point to a single circumstance warranting the assumption that the prime costs of steel production in this country will decline during the next few years even with the assistance of high tariffs. The American success was attributable in large part to the adaptability and high qualifications of the American skilled workman and in large measure also to the progressive development of the country's resources in a hundred different, although parallel, directions. That progressive development both created the demand for steel and went far to conceal and ease the incidence of the burden involved for the American public in its satisfaction exclusively by American manufacturers. The accumulation in the pockets of such steel pioneers as Messrs. Carnegie and Frick of millions of dollars extorted from the public's necessity was in some degree rendered palatable by the fact that parallel success was within the reach of pioneers in a hundred branches of developmental activity. No such compensation is within reach of the masses in an ancient and thickly populated country such as India. Their part in the process is likely to be confined to the unpleasant obligation of contributing to a new source of wealth the creation of which, for many years to come, will serve only to increase their anxieties and lower their standard of living.

I refrain from any attempt to analyze in detail so much of the system of the Tata Iron and Steel Company's accounts as has been made public. The present inquiry, although it may have been necessitated by the position of the Tata concern, involves much more than a mere consideration of its past record and future necessities. I confine myself, therefore, to drawing the Board's attention to one or two facts which throw some light on the claims which the Tata interest now feels itself impelled to put forward. Up to and including the year 1921-22 the nett profits of the Tata Iron and Steel Company, as shown in its own balance sheets, amounted, after payment of debenture interest, to 7½ crores. This profit was the result of at most ten years' effective working of all or a portion of the original plant and early extensions. The nett sum placed to reserve during the course of that long and generally prosperous period, was 17 lakhs of rupees (as opposed to depreciation which absorbed 295 lakhs). Moreover the bulk of the profits shown were earned when the ordinary preferred and deferred capital was standing at a figure which was something less than four crores. During the

**The Tata  
Company's  
Finances.**

five years ended 1916-17, with a total ordinary, preferred and deferred capital of Rs. 2,31,75,000 the Company showed a total nett profit of Rs. 2,35,09,000 or some four lakhs more than its operating capital. During those years it wrote off for Depreciation Rs. 56,20,000 and placed to reserve the sum of 20½ lakhs. In 1916-17 the Company, in the fifth year of its effective working, on a total paid up capital of Rs. 2,31,75,000 realized a nett profit of Rs. 1,10,00,000. It placed to reserve the sum of eleven lakhs and distributed 54 lakhs in the form of dividends. In 1917-18, on a total paid up capital of 2,56¼ lakhs it showed a nett profit of Rs. 1,05,69,000. In 1918-19 on a paid up capital which scarcely exceeded 280 lakhs it showed a nett profit of 67 lakhs. In 1919-20 on a capital still standing during the greater part of the year at a maximum of some 3½ crores it showed a nett profit of 115 lakhs; while, in the following year, an almost identical profit was realized on paid up capital which, until the end of September, stood at roughly 4 crores. During the four years commencing 1917-18 and ending 1920-21 the Tata Iron and Steel Company, repeated its performance of the preceding five years. It again exhibited nett profits (amounting to Rs. 4,03 lakhs) equal to, and indeed exceeding, the whole of the average paid up capital on which it relied for the conduct of its operations. During the last six months of this period, it is true, the company had in its hands 105 lakhs, and in the last two months of the period a further 105 lakhs, of the new capital necessitated by the "greater extensions" project. It seems improbable, however, that this new capital, made available late in the year, can have materially influenced the returns which exhibit such marked similarity to those of 1916-17, 1917-18 and 1919-20, in each of which the nett profits exceeded one crore. During the remarkable period 1917-18 to 1920-21 (inc.) the Company placed to reserve, out of nett profits exceeding 4 crores derived mainly from a like capital, the sum of Rs. 2,58,000, while some 2 crores was written off during the four years for depreciation. Dividends paid during the four years amounted to some 166 lakhs. During the nine year period 1912-13 to 1920-21, the total of dividends paid amounted to 291 lakhs. Of that sum the deferred shareholders, *who at no time represented more than Rs. 14,59,000 of the company's total capital*, received no less a sum than 80\* lakhs of rupees. In the deferred scrip of the company gambling on the stock exchange reached monstrous limits, the price of the thirty rupee holding being raised by the market as high as Rs. 1,630 in the financial year ended June 1918, to Rs. 1,460, in the financial year ended March 1919, and again to Rs. 1,070 in the last year of the series, 1920-21. The Company is open to criticism in that it was seriously at fault in its failure to build up large reserves against post-war depression and also on the ground of the encouragement it accorded to the notion that the first duty of the directors even of nascent industries is to dazzle their shareholders with large dividend payments.

**Some surprising Contracts.**

It may be doubted whether the Company exhibited any greater foresight in its sales contracts, whether they were concluded with the Railway Board, the Palmer (Railway) Companies or the subsidiary companies with which it has surrounded itself. Until 1926, in the case of the Palmer Companies, and until 1925, in the case of the Bengal-Nagpur Company, the Tata Iron and Steel Company, is committed to the annual supply of large quantities of rails at prices which (Rs. 110 per ton in the former case and Rs. 122-8 in the

\*In cross-examination by Mr. Ginwalla, Mr. Pilcher was reminded that, by the issue of 1917 of 26,142 new deferred shares at a premium of over one thousand per cent. on their nominal value of Rs. 30, the Company more than compensated itself for its heavy dividend payments to its original deferred shareholders. His reply took the form of a suggestion that, while finance of such a description might be considered appropriate to the operations of a successful lottery, it would scarcely meet with the approbation of more conservative circles in the city of London.

latter), if accepted by the English and Belgian companies, would be described officially by the Tata Company as an example of dumping. Making all allowance for gratuitous revision of contract rates by the Railway Board, the Tata Iron and Steel Company is supplying rails for the State-managed railways on terms which, on the basis of the Company's cost of production in July 1923, shows a loss to the Company of some Rs. 23 for every ton of rails supplied (difference between, Rs. 156 and Rs. 179). Still more extraordinary, is the fact that the Tata Iron and Steel Company has accepted the Swansea, or mean of British and American cost of production, as the basis price for its supply of steel to its subsidiary companies. One of the largest of these contracts binds the Company until 1948, and none is for a less term of years than ten. It is permissible in reviewing these contracts to remind the Tariff Board of the Fiscal Commission's injunctions against the "stereotyping of inefficiency" and the "encouragement of inefficient production." There is, in Calcutta at least, no single interest but earnestly desires the success of the Tata Iron and Steel Company and the permanent establishment of its affairs on the basis of economic production and a generous reward to capital. From every point of view, the sacrifice of its invaluable experience and the serious impairment of its capital resources now estimated at some 20 crores, would be regarded as lamentable. The findings of the Fiscal Commission furnish no sanction, however, for the condonation of serious error in past management nor for the transfer to the shoulders of the public of burdens which such errors may bring in their train.

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## POSTSCRIPT.

### *Towards a National Balance Sheet.*

My written evidence, as above recorded, was produced (in the intervals of other work) and submitted to the Tariff Board within the short three weeks' delay demanded by the exigencies of the Board's time-table. The necessity of the moment was to direct the attention of the Board to the dimensions of the general interests involved in proposals advanced before it on behalf of particular interests which, relatively speaking, are of small proportions and still mainly private in character. Subject to limitations of time and material that task was performed, however inadequately, and the Board have before them an expression of apprehensions which, combined, constitute a large volume of opinion hostile to the artificial inflation of steel prices in India.

Unfortunately, time did not permit of the natural progression from the treatment of the case, industry by industry and interest by interest, to that complete synthesis of national profit and loss which was predicated as the ideal objective in my opening paragraphs. Possibly such a synthesis can never be attained if only for the obvious reason that both profit and loss lie in the future and the economic reactions of both the one and the other are so subtle as to defy anticipation. While it is possible, for instance, to ascertain with some precision the effect of increased steel costs on the maintenance of existing collieries and even on the exploitation of new ones, it is impossible to estimate the potential economic loss which may result to the country from the fact that, given increased steel prices, many collieries susceptible of development under existing conditions, may never be developed at all under a régime of higher prices. The same observation is true of every form of development, whether it be of rivals to the existing steel factory, railways, irrigation works, bridges and roads or merely agricultural advancement. On the other hand it is open for advocates of the artificial encouragement of steel production to claim that, directly and indirectly, the potential benefits of such development are so varied as to defy prophecy. During an intensive four hours' cross-examination by the Board I endeavoured to formulate some of the reasons for my own scepticism as to the realisation of those potential benefits. Among them are the following, which go some way towards the creation of that national balance sheet which the ultimate elucidation of the subject demands.

On the basis of present costs of production at the Jamshedpur factories (Rs. 179 per ton of rails, in July last) no foreign market is open to the Indian manufacturer of steel. English standard prices (f.o.r.) have ranged between 170 shillings (Rs. 127-5) last December and 210 shillings (Rs. 157-8) in June last. Since July last they have become fairly well stabilized at or around 190 shillings (Rs. 142-8). Despite allegations of dumping, that price, compared with the pre-war index price, exhibits a rise which is so nearly in consonance with the rise in general commodity prices as almost to exclude the probability of any violent price fluctuation in the near future. Excluding the possibility of a convulsion in Europe (which might force steel prices up to the fantastic figures of 1920) that is the price which the Indian producer must be prepared to meet in the world's markets. If he fails to do so he will remain as effectively excluded from them as he now is. The sole field of his sale operations will be the Indian market with its restricted annual consumption of one million tons or less.

The imposition of a high Indian tariff on foreign steel can do nothing to reduce the present Indian cost of producing steel. There is a strong presumption that it will increase the cost of such production, inasmuch as it will tend to an immediate increase in the transit and colliery costs to which, *inter alia*, the Tata interest attributes its declining profits.

Thus, for many years to come, the Indian steel manufacturer, as has been said, will be driven back on the *internal* steel market as his sole resource. Given a tariff high enough to exclude or deter the foreign producer, it must be admitted that, sooner or later, the Indian steel manufacturer will command the whole of the Indian market, supplying its needs—a maximum of one million tons per annum—at a price which, assuming that English f.o.r. prices remain at or around 195s. per ton for rails, and that the duty imposed is  $33\frac{1}{2}$  per cent. *ad valorem*, will hardly be much lower than Rs. 195 per ton of rails. If the cost of production of Indian rails remains constant at the figure of July last (Rs. 179 per ton) the profit accruing to the Indian steel industry will thus be considerable.

It is to be noted, however, that, given the rates quoted, the production of the whole of India's consumption :t a single factory would yield a profit not much, if at all, in excess of Rs. 1,50,00,000, a sum scarcely adequate for the provision of five per cent. interest on the existing investment of the Tata Iron and Steel Company (some 20 crores) *plus* depreciation allowances. Yet that factory is producing only some 140,000 tons of steel *per annum* and, even with the aid of the greater extensions, will produce only 420,000 tons per annum.

The conclusion appears to be inevitable that the Indian steel manufacturer, even if he be aided by high tariff protection, has little to hope *unless and until the present high, and rising, costs of production can be reduced*. Granted high protection of the steel industry, the trade and commerce of the country may suffer all the detriment and inconveniences which I have outlined in my written evidence submitted to the Tariff Board. Yet the steel industry, on the basis of a narrow and inadequate return to capital derived solely from the protected and enervated Indian market, will still be far from reaping the profits which it anticipates and, *a fortiori*, the population of the country will be far from enjoying the compensating advantages which it is promised that it shall enjoy.

Meanwhile, it is to be observed, there might well ensue upon the exclusion of foreign steel or the serious reduction of steel imports, a general rise in Indian prices and in Indian transit and fuel costs. These—to say nothing of the discouraging effects of initial failure—would act as a permanent deterrent to any outside interest whose ultimate object would be the legitimate, praiseworthy and most desirable one of developing India's iron ore resources on a strictly economic basis. The aim of such an interest would be to maintain its over-all costs of production at a figure so low as not merely to justify the priceless gift to India of *cheap steel* but the successful competition of Indian steel in every market of the world. I hold—and I have expert authority for the belief—that this, so far from being a fantastic dream, is a sane and realisable project provided that a firm resistance is offered to the present demand for exaggerated protection by an enterprise which, on the basis even of its potential output, appears to be over-capitalized and caught in what may prove to be an endless chain of rising costs of production.

If this reasoning be sound India, possessed as she is of limitless resources of iron ore containing a high percentage of pure metal, together with adequate, if poor, coking coal and abundant fluxes, is confronted by two alternatives. They are as follows:—

(1) By adopting now a policy of high protection for her steel industry she may save for a none too prudent private interest its investment of some twenty crores but at the expense of high prices and reduced consuming power entailing the incalculable trade losses and retardation of her general progress outlined in my evidence. Most important for the steel industry itself is the fact that the price paid may include the final relinquishment of the hope that India, within the life of the present generation, will become a large scale producer of cheap steel, selling her product freely in the world's markets and enriching both India and the world by the free exchange of a commodity produced at economic, and steadily declining, costs.

(2) By retaining now a policy of purely revenue taxation and by assigning to the reduction of railway and colliery costs, and of taxation, the first place in her national economic programme after that of general economy India may possibly witness the failure of her first great experiment in steel production. (The loss of capital, if any, could be curtailed by financial reconstruction of the Tata Company and possibly by the initiation of a temporary scheme of State purchase of Tata products, based on costings at the works. At worst it is improbable that the valuable steel producing plant assembled at Jamshedpur would become derelict). As against that potential loss India would have the assurance that only time was necessary to the reduction of general producing costs in this country to a level facilitating the development of her iron resources on a scale entirely excluded by the artificial nursing of the restricted internal market.

The first of these two alternatives implies the diversion of large sums of money from the pockets of the State or the consumer into those of private interests. The vast private fortunes accumulated by the American steel kings are eloquent of the price paid even by the United States for the creation of its steel industry.

It involves the risks which are inseparable from industrial expansion during a period of economic uncertainty and political ferment. The present times are so abnormal that retrenchment and restriction of industrial output are the order of the day throughout the iron and steel markets. Only thanks to almost superhuman feats of organization are profits possible at all and only if profits are reduced to a minimum can sales be effected. India lacks both the experience necessary to the intensive organization on which post-war profits are (temporarily) based and she lacks the capital reserves and inter-connections, alike industrial and financial, which alone facilitate resistance to a long period of low profits. Prudence appears to dictate at least a short delay in expansion until low coal and transit costs, and more settled conditions in the world's markets, will act as an offset to the disadvantages entailed by India's defects of labour supply, education, capital resources, transit facilities and the like. In the exercise of patience India will undergo no greater trial than is being sustained to-day by every industrial unit, be it national or individual.

The first alternative implies further the risk of development in the iron and steel trade which would be disproportionate to India's advancement in other branches of her industrial progress. Some sixty years have gone to the construction of a jute industry utilizing fifty crores of capital. In other great industries advancement has been as slow or slower and in every instance it has necessarily proceeded *pari passu* with the creation of the necessary labour supply, the acquisition of the requisite industrial and trading experience, the laborious building up of reserves and the slow, if steady, exploitation of new markets. The programme for the hasty construction by artificial means of a large steel industry in India is inconsistent with the condition and present qualifications of Indian labour, with the scanty expert skill and knowledge of steel processes and the steel markets available in this country and with the relative dearth and scarcity of loan money. The strain imposed by rapid steel development on India's labour supplies and monetary resources is likely to have an adverse reflex action on the colliery and other industries. Among the prime essentials of industrial progress in India may be placed the avoidance of megalomania and the cultivation of that well-proportioned development which the Fiscal Commission advocated.

GEORGE PILCHER.

Calcutta, November, 15, 1923.

## INDIA'S STEEL IMPORTS.

### VALUES AND COUNTRIES OF ORIGIN.

India's imports of steel, manufactured or semi-manufactured, are classified under four main headings: Machinery and Mill-work; Metals: Iron and Steel; Railway plant and rolling stock; and Hardware. The values under these headings were as follows:

	Machinery and Mill-work.	Metals : Iron and Steel.	Railway Plant.	Hardware.	Annual Total.
IN MILLIONS STERLING.					
Pre-war average.	3½	7½	4	2	17½
1919-20.	6½	11	3	3	23½
1920-21.	14½	21	9½	6	51
1921-22.	23	14	12½	4	53½
1922-23.	15½	10	7½	3½	36½

### IRON AND STEEL.

Under the heading Metals: iron and steel, the following are particulars, under certain sub-headings only, of quantities and values derived from the United Kingdom in 1922-23:—

Description.	Quantity.	Value.
	Tons.	£
Beams, Pillars, Girders and Bridge-work	30,686	500,000
Bolts and Nuts .. .. .	3,209	128,000
Hoops and Strips .. .. .	17,181	300,000
Nails, rivets, etc. .. .. .	4,484	140,000
Pipes and Fittings .. .. .	21,155	340,000
Galvanized Sheets, etc. .. .. .	114,517	2,400,000
Tinned Sheets, etc. .. .. .	38,739	1,000,000
Other .. .. .	39,487	555,000
Tubes, Pipes, etc. (wrought) .. .. .	13,155	450,000
Wire Nails .. .. .	629	12,000
„ Rope .. .. .	2,161	140,000
Bars and Channel .. .. .	188,000	1,900,000
Tea-chest sheets .. .. .	16,054	36,000

### RAILWAY PLANT.

India's railway plant was derived as follows from the following sources:—

Country.	1920-21.	1921-22.	1922-23.
	£	£	£
United Kingdom .. .. .	9,000,000	12,200,000	6,900,000
Canada .. .. .	130,000	14,000	40,000
United States .. .. .	125,000	75,000	85,000
Australia, etc. .. .. .	80,000	125,000	50,000
Other countries .. .. .	60,000	100,000	251,000

HARDWARE.

India's supplies of hardware, including agricultural implements, buckets, builders', domestic and enamelled hardware, metal and glass lamps, stoves, etc., were derived as follows:—

Country.	1920-21.	1921-22.	1922-23.
	£	£	£
United Kingdom .. ..	3,500,000	2,400,000	1,700,000
Germany .. ..	150,000	400,000	750,000
Belgium .. ..	27,000	15,000	25,000
Japan .. ..	500,000	140,000	220,000
United States .. ..	1,500,000	690,000	320,000

MACHINERY AND MILL-WORK.

The share of India's imports of machinery and mill-work contributed by the United Kingdom was valued in 1920-21 at £11,700,000; in 1921-22 at £19,000,000; and in 1922-23 at £13,000,000. The heaviest contributory items were locomotives, electrical machinery, boilers, mining, oil-crushing, paper-mill and refrigerating machinery, sugar, tea and textile (both cotton and jute mill) machinery.

TATA'S ALLIED COMPANIES.

The subsidiary companies already allied with the Tata Iron and Steel Company, include the Agricultural Implements Co., Ltd., the Peninsular Locomotive Co., Ltd., the Indian Steel Wire Co., Ltd., the Tinplate Co. of India, Ltd., the Indian Cable Co., Ltd., Enamelled Ironware, Ltd., and the Calmoni Engineering Co., Ltd. By the first four of these enterprises claims have already been advanced for protection compatible with the demand for protection put forward by the Tata Iron and Steel Company.

A LARGE IRRIGATION CONTRACT.

The *Financial Times* of October 26, 1923, records the placing of a contract for steel sluice gates, valued at nearly £80,000 with Messrs. Glenfield and Kennedy, of Kilmarnock, by the Irrigation Department of the Indian Government. This particular contract, which is intended for the Sarda Canal barrage scheme in the Punjab, comprises 50 huge steel sluice gates, of which 30 are 50 ft. wide by 11 ft. deep, 4 are 50 ft. wide by 13 ft. deep, while the remaining 16 are 20 ft. by 6 ft. 4 ins., together with all the necessary auxiliaries for raising and lowering, in the shape of heavy wire ropes, counter-weights of many tons, gearing, steel rollers, and side frames. The total deadweight of steel alone involved in the order is over 2,000 tons. This contract affords an excellent specimen of the large scale steel constructional work always in progress in India—work on which, sooner or later, the indigenous steel industry will inevitably levy its toll if a tariff, exclusive in its intention, is once imposed. Estimated on the dead weight of steel employed, a tariff of 33½ per cent. *ad valorem* at present prices would add 1 lakh of rupees to the Irrigation Department's outlay on the above contract.