

DEPARTMENT OF OVERSEAS TRADE

Conditions and Prospects of  
United Kingdom Trade  
IN  
INDIA

1930-31

*(Revised to August, 1931)*

REPORT

BY

THOMAS M. AINSCOUGH, C.B.E., M.Com., F.R.G.S.

*H.M. Senior Trade Commissioner in India and Ceylon*

*(The previous Report covered the year 1929-30)*



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## DEPARTMENT OF OVERSEAS TRADE.

### COMMERCIAL REPRESENTATION ABROAD.

To foster British overseas trade, the Department has developed and controls the following Services of Commercial Intelligence Officers:—

#### 1. IN THE EMPIRE.

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At the present time there are 17 Trade Commissioners' offices. These are situated, four in Canada (Montreal, Toronto, Vancouver, Winnipeg); three in South Africa (Capetown, Durban, Johannesburg); two in Australia (Sydney, Melbourne) and India (Calcutta and Bombay—to cover also Ceylon), and British West Indies (Trinidad, Jamaica); and one each in New Zealand (Wellington), Irish Free State (Dublin), British East Africa (Nairobi), and Malaya (Singapore).

The Trade Commissioners have the assistance of Imperial Trade Correspondents at a number of important centres.

In various parts of the Empire in which at present there are no Commissioners, there are Correspondents with whom the Department deals direct.

The Department is represented in India by Mr. T. M. Ainscough, C.B.E., H. M. Senior Trade Commissioner, Calcutta, and Mr. W. D. Montgomery Clarke, H. M. Trade Commissioner, Bombay.

#### 2. IN FOREIGN COUNTRIES.

##### *(a) The Commercial Diplomatic Service attached to the British Diplomatic Missions.*

This service consists of 44 officers who are stationed in all the more important foreign markets of the world. The members of the Commercial Diplomatic Service are styled "Commercial Counsellors" in the highest grade, and "Commercial Secretaries" in the two lower grades. They are members of the staff of the British Embassy or Legation in which they serve.

The Commercial Diplomatic Officer has general supervision over the commercial work of the consular officers in his area and, with the co-operation of these two services, a complete network of Government commercial representatives is thrown over foreign countries.

##### *(b) The British Consular Service.*

Particular attention has been given to the commercial side of consular work since the re-organisation of the service. In certain countries where no Commercial Diplomatic Officer is stationed the senior Consular Officer undertakes duties of a similar character.

Further information regarding the above services can be obtained on application to the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

Members of British firms are urged to call upon the Department's representative abroad when they visit an overseas country. It is also important that they should make a point of their representatives abroad keeping in close touch with the Department's officers.

#### NOTE.

*It should be understood that the views expressed in annual reports are the views of the officers themselves, and are not necessarily in all respects those of the Department.*

## COVERING DESPATCH.

*To the Right Honourable  
the President of the Board of Trade.*

Office of H. M. Senior Trade Commissioner in India,  
Fairlie House,  
Fairlie Place,  
Calcutta.

October 8th, 1931.

SIR,

I have the honour to forward for your information a Report on the Conditions and Prospects of United Kingdom Trade in India during the Indian fiscal year 1930-31, revised to August, 1931.

The period under review has been one of the most critical in the history of trade relations between the United Kingdom and India. After reaching the trough of the world-wide economic depression, the Indian market was prejudicially affected by the unsettled political conditions, of which the most remarkable manifestation in the commercial field was the boycott of foreign goods; this boycott reacted disastrously upon internal and external trade alike, inflicted heavy losses upon traders, and dealt a severe blow at India's credit overseas. The combined effect of the economic slump and the political agitation has been seriously to weaken the position of the United Kingdom exporter in important branches of the import trade and to stimulate the substitution of the lower-priced products of indigenous manufacture and also of our German and Japanese competitors. Although the influence of the political movement is, at the moment, waning, the deepening of the agricultural depression and the widespread lack of confidence in the future are factors which will retard recovery.

Since the report was written, two events of paramount importance have taken place which will have wide repercussions on Indian trade :—

The suspension by the United Kingdom of the gold standard and the linking of the rupee to sterling at the existing ratio of 1s. 6d. should act as a powerful stimulus to India's exports to countries which are still on the gold standard, among which are some of her principal customers, *e.g.*, the United States, Germany, France and Italy. Conversely, the depreciation of the sterling and rupee exchange now enables United Kingdom exporters to quote rupee prices which are below those ruling in the case of gold countries, notably Germany and the United States, who are among our keenest rivals in the Indian market. Other things being equal, therefore, there should be a considerable advance in price of the country's principal agricultural products which will increase the purchasing power of the people and will be reflected in a greater demand for imported goods. It is to be hoped that the United Kingdom manufacturer, by reason of his advantage in exchange, will do all that lies in his power to secure an increased proportion of this trade.

The supplementary budget, introduced on September 30th, 1931, with its provisions for retrenchment, the imposition of certain new import duties and of an all-round surcharge of one-quarter on existing import duties and excise, while acting as a further temporary restriction on the import trade, should, in the long run, redound to India's advantage by demonstrating to the world that the Government of India is determined to balance the budget and adhere to the strictest financial principles. The ultimate effect should be to restore confidence in Indian securities and to convince the world of the inherent soundness of the country's financial position.

Once again I have to acknowledge my indebtedness to the officials of the Commerce, Industries and Finance Departments of the Government of India for their unfailing courtesy and assistance during the year. Special thanks are due to the Director-General of Commercial Intelligence and Statistics and his staff who have prepared the special tables embodied in the report, to the Chief Controller of the Indian Stores Department and to the Collectors of Customs for their valuable help and co-operation which have always been so willingly rendered. I should also like to record my appreciation of the numerous memoranda which have been contributed by officers in charge of important works throughout the country and which have, in most cases, been incorporated with due acknowledgments in the report.

I have the honour to be, Sir,

Your most obedient servant,

THOMAS M. AINSCOUGH,

*H.M. Senior Trade Commissioner in India.*

## PREFATORY TABLES.

*Note.—The author desires to express his indebtedness to the Director-General of Commercial Intelligence and Statistics for the particulars given in these tables.*

### 1.—TRADE DISTRIBUTION :—PRINCIPAL ARTICLES.

TABLE SHOWING VARIATIONS IN THE SHARES OF THE PRINCIPAL ARTICLES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

#### IMPORTS (*in percentages*).

(Sea borne : exclusive of treasure and of imports on Government account.)

	1909-14 Average	1914-19 Average	1928-29	1929-30	1930-31
Cotton manufactures ...	36	35	25	25	15
Iron and steel ...	7	6	8	7	7
Machinery ...	4	4	7	8	9
Sugar ...	9	10	6	6	7
Hardware ...	2	2	2	2	2
Mineral oil ...	3	3	4	5	6
Silk ...	3	2	2	1	1
Other articles ...	36	38	46	46	53

#### EXPORTS (*in percentages*).

(Sea borne : exclusive of treasure and of exports on Government account.)

	1909-14 Average	1914-19 Average	1928-29	1929-30	1930-31
Jute, raw and manufactures	19	25	27	26	20
Cotton, raw and manufactures ...	15	16	23	23	24
Food grains ...	21	17	10	11	14
Seeds ...	11	6	9	9	8
Tea ...	6	8	8	8	11
Hides and skins ...	7	8	3	3	2
Other articles ...	21	20	20	20	21

## II.—TRADE DISTRIBUTION: PRINCIPAL COUNTRIES.

TABLE SHOWING VARIATIONS IN THE SHARE OF THE PRINCIPAL COUNTRIES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

### IMPORTS (in percentages).

(Sea borne: exclusive of treasure and of imports on Government account.)

	1909-14 Average	1914-19 Average	1928-29	1929-30	1930-31
United Kingdom ... ..	63	56	45	43	37
Other parts of the British Empire ... ..	7	9	9	9	9
United States ... ..	3	7	7	7	9
Japan ... ..	2	10	7	10	9
Java ... ..	6	8	7	6	6
Germany ... ..	6	1	6	7	7
Other foreign countries ...	13	9	19	18	23

*Note.*—Imports from Germany during the quinquennium, 1914-19, consisted mostly of receipts in the early part of the official year 1914-15, and the residue of cargoes of prize vessels imported during the war period.

### EXPORTS\* (in percentages).

(Sea borne: exclusive of treasure and of exports on Government account.)

	1909-14 Average	1914-19 Average	1928-29	1929-30	1930-31
United Kingdom ... ..	25	31	21	22	24
Other parts of the British Empire ... ..	16	21	14	14	16
United States ... ..	8	12	12	12	9
Japan ... ..	8	11	10	10	11
France ... ..	7	4	5	5	5
Germany ... ..	10	1	9	8	6
Other foreign countries ...	26	20	29	29	29

*Note.*—Exports to Germany during the quinquennium, 1914-19, were confined to the early part of the official year 1914-15.

\*Including re-exports.

## COMMERCIAL SUMMARY.

<i>Area.—</i>				<i>Sq. miles.</i>
British India	...	...	...	1,094,300
Native States	...	...	...	711,032
				1,805,332

*Population Census of 1931.—*

British India	...	...	...	271,749,312
Native States	...	...	...	81,237,564
				352,986,876

*Language (Commercial use of English, etc.).—English.**Monetary unit(s).—*

3 pie=1 pice.

4 pice=1 anna.

16 annas=1 rupee.

1 lakh = Rs.1,00,000 } e.g., Rs.1,45,67,200 = 1 crore, 45 lakhs, 67,200

1 crore = 100 lakhs } rupees.

*Rate of Exchange (pre-war and current average quotations).—*

Pre-war	...	...	...	1s. 4d.
Current, June 30th, 1931	...	...	...	1s. 6d.

*Index Numbers—July, 1914=100.*

Wholesale prices, Bombay	...	...	...	June, 1931=108.
Retail prices (food), Bombay	...	...	...	June, 1931=121.
Cost of living (working class), Bombay	...	...	...	June, 1931=109.

*Principal Weights and Measures (other than ordinary metric or British) with British equivalents.*—Weights and measures in India vary not only from district to district but also for different commodities within the same district, and though the railways have given a lead to the adoption of a uniform system, the country is so vast that the differences are likely to persist for many years to come. The principal units in all the scales of weights are the maund, seer and the tola, and the standard weights for each of these are 82·28 lbs., 2,057 lbs. and 180 grains troy. The tola is the same weight as the rupee. In addition to these weights, there is the viss of 3·60 lbs. or 140 tolas and the candy of 500 to 840 lbs. It is not necessary for the purposes of this volume to detail any variation of the weight of the maund, except those which enter into the export trade. It will be sufficient to say that in any particular city there are probably as many different maunds as there are articles to weigh. The only varieties which need be considered in connection with the foreign trade are the Bengal or railway maund already specified, the factory maund of 74 lbs. 10 ozs. 11 drs., the Bombay maund of 28 lbs. and the Madras maund of 25 lbs. In October, 1913, the Government appointed a Committee to inquire into the whole question, and their majority report, which was presented in the following year, recommended the extension of the railway system based on the 180 grains tola, while the minority report advocated the adoption of the metric system. The views of the Provincial Governments on these reports were obtained and the Government of India in their resolution dated the 3rd January, 1922, declared themselves in favour of the ultimate adoption in India, excluding Burma, of a uniform system of weights based on the scale now in use on the railways. It has been decided that no new measures prescribing all-India measures of weight or capacity should be introduced at present but that the Local Governments should take such executive action as they can to educate public opinion in favour of the standard maund and seer.

In the table below an attempt has been made to present within a small compass the principal weights and measures employed in the Indian export trade.

*Principal weights and measures in use in the export trade.—*

Name of Unit.	General.	British Imperial Value.
Tola ... ..	...	180 grains troy.
Seer (Standard or Railway or Indian) ...	...	2,057 lbs.
Seer (Factory) ... ..	...	1 lb. 13·5 oz.
Viss ... ..	...	3·60 lbs.
Maund (Standard or 40 seers Railway or Indian) ... ..	...	82 lbs. 4 oz. 9 dr.
Maund (Factory) ... ..	...	74 lbs. 10 oz. 11 dr.

*Note.*—For local variations consult " Handbook of Commercial Information for India " by C. W. E. Cotton, C.I.E., I.C.S., 2nd Edition, 1924.

*Total Imports—1st April, 1930, to 31st March, 1931.*

	Rs.
Merchandise ... ..	1,64,82,54,520
Government Stores ... ..	8,26,89,069
Treasure ... ..	26,86,48,373
<b>Total</b> ... ..	<b>1,99,95,91,962</b>

Principal Imports.—Cotton manufactures, machinery, sugar, oils, iron and steel.

	Rs.
Imports of merchandise from United Kingdom	61,25,07,686
" " " United States ...	15,15,29,633
" " " Japan ...	14,52,92,661
" " " Germany... ..	12,41,46,381
" " " Java ... ..	10,34,07,470

*Total Exports—(Indian merchandise)—1st April, 1930, to 31st March, 1931.*  
Rs.220,45,52,676.

Principal Exports—Cotton, jute, grain, pulse, tea and seeds.

	Rs.
Exports of Indian merchandise to United Kingdom	51,84,89,044
" " " Japan ...	23,76,34,306
" " " United States	20,61,34,287
" " " Germany ...	14,05,86,627

*Railway mileage.—31st March, 1930.*

Railways owned by the State ... ..	44,473
Other railways ... ..	12,002
<b>Total route mileage opened for traffic</b> ... ..	<b>56,475</b>



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**REPORT on the CONDITIONS and PROSPECTS of  
BRITISH TRADE in INDIA  
1930-1931.**

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**CHAPTER I.**

**GENERAL REVIEW OF THE PERIOD.**

India was one of the last of the great producing countries to feel the full force of the world-wide economic storm, but the year 1930/31 will long be remembered as a period of acute commercial and industrial depression which was almost unparalleled in its intensity and reactions, and which is being continued, without any sign of improvement, during the present fiscal year. Notwithstanding the fact that the monsoon was a favourable one and that almost all the principal crops showed an increased outturn over the previous year, the world-wide fall in prices affected most severely those countries whose economic activities are mainly directed to the production of primary agricultural products. India was, therefore, placed in the paradoxical position of having large quantities of surplus exportable crops, which could not be exported except at a heavy loss owing to the low level of prices in all markets and general lack of demand.

The following table from the Review of the Trade of India shows the index numbers of wholesale prices in India, the United Kingdom, the United States, Canada, Australia and Japan :—

	India, Calcutta (July, 1914= 100)	United Kingdom (1913= 100)	United States (1926= 100)	Canada (1926= 100)	Australia (1911= 1,000)	Japan (October 1900= 100)
<b>1929</b>						
September ...	143	135.8	97.5	97.3	1,858	217.5
October ...	140	136.1	96.3	96.7	1,832	216.2
November ...	137	134.0	94.4	95.8	1,804	211.1
December ...	134	132.5	94.2	96.2	1,760	205.0
<b>1930</b>						
January ...	131	131.0	93.4	95.6	1,719	201.4
February ...	126	127.8	92.1	94.0	1,674	199.8
March ...	125	124.5	90.8	91.9	1,647	195.9
April ...	123	123.7	90.7	91.7	1,662	192.8
May ...	121	122.0	89.1	89.9	1,683	189.4
June ...	116	120.7	86.8	88.0	1,657	181.2
July ...	115	119.2	84.0	85.8	1,644	176.6
August ...	114	117.8	84.0	84.1	1,620	175.6
September ...	111	115.5	84.2	82.5	1,532	171.5
October ...	107	113.0	82.6	81.4	1,479	164.6
November ...	103	112.0	80.4	79.8	1,437	162.2
December ...	100	108.9	78.4	77.8	1,399	160.8
<b>1931</b>						
January ...	98	106.9	77.0	76.7	1,454	158.5
February ...	99	106.2	75.5	76.0	1,448	158.0
March ...	100	105.9	74.5	75.1	1,456	158.3
April ...	98	105.7	73.3	74.5	1,447	157.9
May ...	97	104.4	71.3	73.0	1,440	154.0
June ...	93	103.2	70.0	72.2	1,425	150.7
July ...	93	102.2	70.0	71.7	1,428	152.8

It will be remarked that the fall in prices is most severe in the case of countries whose principal products consist of primary articles such as foodstuffs and raw materials. For example the fall in the Calcutta wholesale price index was 32 per cent. and in that of Japan over 27 per cent., whereas the corresponding figures for the United Kingdom and the United States were 22 and 24 per cent. respectively. The greater fall in the case of raw materials than in the case of manufactured articles is clearly shown in the next table (also taken from the Review of the Trade of India) which gives the respective index numbers of exported and imported articles in Calcutta during the same period :—

*Calcutta Index Number Series (1914).*

						Exported articles.	Imported articles.
1929							
September	...	...	...	...	...	133	150
October	...	...	...	...	...	130	149
November	...	...	...	...	...	125	146
December	...	...	...	...	...	123	143
1930							
January ...	...	...	...	...	...	120	141
February	...	...	...	...	...	113	140
March ...	...	...	...	...	...	111	140
April ...	...	...	...	...	...	110	140
May ...	...	...	...	...	...	108	139
June ...	...	...	...	...	...	101	136
July ...	...	...	...	...	...	98	135
August ...	...	...	...	...	...	96	136
September	...	...	...	...	...	93	135
October	...	...	...	...	...	90	131
November	...	...	...	...	...	87	127
December	...	...	...	...	...	85	125
Fall in December, 1930, on September, 1929						36 per cent.	17 per cent.
1931							
January ...	...	...	...	...	...	82	124
February	...	...	...	...	...	84	125
March ...	...	...	...	...	...	84	126
Fall in March, 1931, as compared with Sep- tember, 1929						37 per cent.	16 per cent.

The fall, between September, 1929, and March, 1931, in the prices of articles which India exports was 37 per cent. whereas the fall in the prices of the main articles of import during the same period was not more than 16 per cent. As the Hon. the Finance Member stated in introducing the budget on February 28th, 1931—"India may perhaps be said to be going through the worst time now. She has felt the severity of the fall in the case of what she has to sell, but has not obtained a corresponding advantage of the fall in prices of what she has to buy." The effect on the import trade of this disparity in the index numbers will be dealt with later.

During the year ended March 31st, 1931, the value of India's total imports of merchandise amounted to Rs.165 crores showing a fall, as compared with 1929/30, of Rs.76 crores or 31 per cent. The total exports, including re-exports, amounted to Rs.225 crores, showing a fall of Rs.93 crores or 29 per cent. The grand total of imports, exports and re-exports amounted to Rs.390 crores, showing a decrease of Rs.169 crores or 30 per cent. It is noteworthy that the figures for imports, exports and total trade in merchandise are below those recorded for the year 1913/14.

**India's Export Trade.—1930/31.**—The decline of Rs.93 crores (29 per cent.) in the export trade is entirely attributable to the fall in prices of India's staple export commodities. In some instances the quantity exported during the year varied only slightly

from the quantity exported in 1929/30, but the fall in value has been almost unprecedented. If the exports during the years 1930/31 and 1929/30 are expressed in terms of the average values of the year 1913/14, it will be found that the volume of exports declined by only 11 per cent. as compared with 1929/30, while the volume of imports declined by 17 per cent. The following table compiled by the Director-General of Commercial Intelligence, giving the price index numbers of the principal groups of commodities, provides the clue to the situation :—

Articles.	Index numbers (July, 1914=100).				Percentage decline on the basis of September, 1929.		
	September, 1929	March, 1930	December, 1930	March, 1931	March, 1930	December, 1930	March, 1931
Cereals—							
Rice ... ..	124	104	93	81	16	25	35
Wheat ... ..	135	106	72	72	21	47	47
Tea ... ..	129	121	115	114	6	11	12
Oilseeds ... ..	175	142	99	90	19	43	49
Jute, raw ... ..	90	72	45	45	20	50	50
Cotton, raw ... ..	146	107	69	93	27	53	36
Hides and skins	109	100	79	80	8	28	27
Jute manufactures ... ..	122	89	74	80	27	39	34
Cotton manufactures ... ..	161	149	125	130	7	22	19
Metals ... ..	130	117	109	110	10	16	15
Sugar ... ..	164	154	128	133	6	22	19
All commodities (including pulses, etc.) ... ..	143	125	101	100	13	29	30

Reviewing the export trade of the year, the Director-General states that :—

“ The outstanding factor was the slump in the jute trade which was responsible for a decline of 378,000 tons in the total weight and of Rs.34 crores in the value of raw and manufactured jute exported. Shipments of raw jute declined from 4,519,000 bales to 3,470,000 bales in quantity and from Rs.27 crores to Rs.13 crores in value. Despatches of gunny bags receded from 522 millions valued at Rs.22 crores to 434 millions valued at Rs.15 crores and those of gunny cloth from 1,651 million yards valued at Rs.30 crores to 1,271 million yards valued at Rs.17 crores. There was a decline of Rs.21 crores under cotton, raw and manufactured. Exports of raw cotton fell off by 144,000 bales to 3,926,000 bales, mainly as a result of the depressed condition of the cotton industry of the world, but the lower prices for cotton all the world over made the slump conditions more pronounced on the value side, which showed a decline from Rs.65 crores to Rs.46 crores. Twist and yarn constituted, as usual in recent years, a minor item in the cotton export trade, but there also the year's despatches declined from 24.6 million lbs. to 23.5 million lbs. Exports of cotton piecegoods also declined from 133 million yards valued at Rs.4.67 lakhs to 98 million yards valued at Rs.3.32 lakhs. Under food grains, the value of the shipments declined from Rs.34.79 lakhs to Rs.29.88 lakhs, although on the quantity side there was actually a gain from 2,510,000 tons to 2,614,000 tons. This improvement was wholly due to a partial recovery in the wheat export trade. Exports of wheat amounted to

196,500 tons, which compared very favourably with the low figure of 13,000 tons recorded in 1929-30. Shipments of rice declined in volume from 2,326,000 to 2,279,090 tons, whereas the value declined more heavily by Rs.5,54 lakhs to Rs.25,97 lakhs owing to the lower prices ruling. Shipments of tea fell by 20.4 million lbs. to 356.2 million lbs. and by Rs.2,45 lakhs to Rs.23,56 lakhs in value. Shipments of oilseeds amounted to 1,037,000 tons valued at Rs.17,86 lakhs. This meant a decline of 13 per cent. in quantity and of 33 per cent. in value in comparison with the exports of the preceding year. The decline was mainly due to a falling off in exports of groundnuts from 714,000 tons to 601,000 tons. Linseed alone among the different kinds of oilseeds showed an increase of 9,000 tons, but, in spite of this gain, the value declined by Rs.31 lakhs to Rs.5,41 lakhs. There was a decrease in shipments of hides and skins from 74,100 tons valued at Rs.16,03 lakhs to 63,000 tons valued at Rs.11,74 lakhs. Exports of lac amounted to 547,000 cwts, valued at Rs.3,14 lakhs, which represented a decline of 18 per cent. in quantity and of 55 per cent. in value."

**Indian Crop Review and Present Outlook**—The present position (August, 1931), and future outlook were clearly summarised by the Chairman of the Imperial Bank of India in his annual address on August 17th in the following terms:—

"The **Burma Rice Crop** for export in 1931 was estimated at the record figure of 3½ million tons. Owing to the heavy decline in values which set in from last October and continued throughout the first half of this year and owing to the outbreak of the "Rebellion" which has interfered with the normal course of business over a very wide area almost exclusively composed of paddy land, exports were curtailed and by June 30th less than 50 per cent. of the estimated tonnage had actually been shipped. In spite of the comparatively low cost of production of Burma rice present prices leave no margin to the cultivator. Price prospects, however, are better owing to less favourable reports of the Japanese rice crop.

"The **Jute Crop** was a large one estimated at 112½ lakhs of bales. Prices fell sharply from July. Exports decreased by 24 per cent. and consumption by local mills fell by 28 per cent. New crop acreage estimate indicates an area of 19 lakhs of acres against 35 lakhs of acres in 1930. Prospects do not appear favourable for any appreciable improvements in prices.

"The **Wheat Crop** which promised well both in quantity and quality was marketed under the same depressing conditions intensified by forced sales from Australia and Russia. In spite of assistance in the shape of reduced railway freights to the ports and the passing of the Wheat Import Bill by the Legislature, prices fell nearly 50 per cent. and the demand for finance was greatly curtailed. With large surpluses in most wheat producing countries of the world prospects for the coming season's crop are not hopeful in spite of the probability of some diminution in acreage.

"Tea escaped the almost universal collapse in prices until early this year when, however, prices declined sharply in spite of an estimated decrease of some 5½ million pounds in outturn up to June, 1931, as compared with the corresponding period of 1930. In spite of the restriction scheme applied in the three chief producing countries of India, Ceylon and Java, which resulted in a decreased world outturn of 59 million pounds in 1930 as compared with 1929, stocks have accumulated with alarming rapidity and the outlook is not promising. Prices dropped from 8½ annas per lb. at the opening of the current season to 6½ annas at the end of June last.

"**Cotton.**—The statistical information available for the Indian cotton crop is somewhat conflicting and owing to the various methods adopted by Government Associations and private parties of presenting their figures, it is difficult to obtain an accurate picture. With this reservation the 1930-31

crop outturn is estimated at some 58 lakhs of bales which, with a carryover of some 6 lakhs of bales from the previous season, gives a total visible supply of 64 lakhs of bales for 1930-31. Exports from September to June inclusive total 32½ lakhs bales of which about 50 per cent. was taken by Japan, and mill consumption including domestic consumption may be taken at 26 lakhs bales for the whole season. Imports of cotton from abroad totalled just over 4 lakhs of bales from September 1st to June 30th amongst which figured a few hundred bales from Russia, a new source of supply. Prices fell heavily during the latter part of 1930, but rallied in the early months of 1931 only to slump again heavily since June.

" A careful investigation carried out by the Bank into the cost of growing the coming crop in relation to current market prices revealed the fact that the bulk of the crop was being put down at prices which left no profit to the cultivator.

" The stock position, however, is healthy. The Indian-American parity has narrowed and resistance by Indian cotton to the price decline is impressive.

" The percentage fall in price of the chief crops of India during the year under review has been as follows :—

	Per cent.
Cotton (Broach) ... ..	16
Jute (Raw) ... ..	47
Paddy (Rangoon) ... ..	58
Rice (Big Mill Specials) ... ..	57
Tea (Calcutta) ... ..	43
Wheat ... ..	46
Groundnuts ... ..	-40

Since June certain prices, notably cotton prices, have declined appreciably further, and although monsoon conditions to date are favourable, crops are being laid down for the most part at rates which leave no margin of profit to the growers.

The Calcutta Index Number of wholesale prices (all commodities) fell from 116 in June, 1930, to 93 in June, 1931—a fall of 23 points during the year. A further factor which has materially contributed to the present distress amongst the agricultural population is the continued heavy fall in the price of silver from 17d. to 13d.

**India's Import Trade, 1930/31.**—I have laid particular stress this year upon the conditions in the export trade resulting from the exceptional fall in raw material prices because they have had a direct bearing upon the course of the import trade, which, as we have seen, was reduced by Rs.76 crores or 31 per cent., *i.e.*, a 2 per cent. greater diminution than in the case of the export trade. It is remarkable that the decline, measured by values, in each case, should be so close. The percentage reduction in the *volume* of imports however, if it could be measured on a common basis, would be found to be much greater than the percentage reduction in the case of *values* of imports. The following instructive table, abstracted from the Review of Trade, shows the values of both imports and exports on the basis of the declared values in 1913/14 :—

	1913 -14	1923 -24	1924 -25	1925 -26	1926 -27	1927 -28	1928 -29	1929 -30	1930 -31
Imports ... ..	183	120	137	143	156	181	190	189	157
Exports ... ..	244	240	250	248	228	248	260	263	235
Total trade in merchandise excluding re-exports	427	360	387	389	384	429	450	452	392

The Director-General of Commercial Intelligence has also compiled the following statement of index numbers illustrating the extent to which the general level of prices for imported articles adjusted itself to the general level of prices for India's exported commodities. The figures have been obtained by comparing the values of imports and exports, as shown in the preceding table, with the values actually recorded for each :—

	1913 -14	1923 -24	1924 -25	1925 -26	1926 -27	1927 -28	1928 -29	1929 -30	1930 -31
Imports ... ..	100	190	180	158	148	136	133	128	105
Exports ... ..	100	145	154	152	132	130	127	118	94

It will be observed that the margin between the two gradually narrowed (with the exception of the year 1926/27) until 1928/29 when it widened to 10 points and, during the past year, it widened further to 11 points.

The phenomenal reduction by over one-third in the volume of India's imports may be attributed to two main factors, firstly, the heavy fall in the purchasing power of the Indian consumer as a result of the drop in the prices obtainable for his produce and, secondly, the political movement involving both the boycott of United Kingdom goods, and the closing of certain markets for lengthy periods, violent picketing, and a general state of disturbance entailing severe losses to traders and widespread lack of confidence.

**Reduced Purchasing Power of the Indian Consumer.—**Of the people of India, fully 75 per cent. derive their livelihood from the produce of the land and even in normal times have only a small margin, after providing for their food and certain fixed charges such as rent, water rates, interest on money borrowed from the "Bania," &c., to expend on imported articles. During the past year the income received from the sale of the exportable surplus fell by no less than Rs.93 crores (£70 millions sterling) and this heavy reduction was ultimately borne by the patient cultivator of Bengal (so far as the Rs.24 crore drop in jute and jute products



is concerned) by the ryots of the Central Provinces, Bombay Presidency, Madras and the Punjab (so far as the drop of Rs.18½ crores in raw cotton is concerned), by the peasants of Burma (as regards the drop of Rs.5½ crores in rice), the peasants of Madras, the Bombay Presidency, the Central Provinces and Upper India (as regards the drop of Rs.9 crores in oilseeds), by the ryots of the United Provinces, the Punjab and Madras (as regards the drop of Rs.2½ crores in hides and skins) and by the peasants of N.W. India (so far as concerns the drop of Rs.5 crores in grain, pulse and flour). In many cases the income of the cultivator was reduced to one-half, directly on account of the fall in price of his produce.

On the other hand, we have seen that the price index of imported articles only fell by 16 per cent. as compared with 37 per cent. in the case of exported commodities. Consequently the consumer has not been able to secure a corresponding advantage in the fall in prices of his requirements of such items as cotton piecegoods, hardware, metals, kerosene and tobacco, &c., &c. His reduced available balance, therefore, could only purchase the smallest possible quantity of imported goods. The result has been that the consumer has, in the first place, economised as far as possible, e.g., by mending his torn dhootie and allowing his youngest children to wear the minimum of clothing, secondly, he has confined his purchases to the cheaper forms of country-made articles and substituted handloom or Indian mill goods for the finer Lancashire product, and—where imported goods only were available for his needs—he has substituted the cheaper Japanese cloth, Continental metals and hardware, and Russian kerosene for the higher-priced goods of British origin. Perhaps the most striking example of this reduction in purchasing power is the decline by 65,000 tons in the imports of galvanised steel sheets into Calcutta, which is directly attributable to the depression in the jute districts of Eastern Bengal.

**The Political Disturbance.**—It is practically impossible to assess the precise extent to which the decline in the import trade is attributable to political movements. Throughout almost the whole of the year the foreign cloth market of Bombay was closed and that of Calcutta was moribund. Delhi, Cawnpore and Amritsar were also centres of strong Congress propaganda. Karachi, being remote from the centre of the conflict, was only affected at a later stage, but eventually suffered like the rest. Southern India is the only part of the peninsula where the boycott of United Kingdom goods made relatively little headway and consequently the trade of Madras has suffered least. Burma, of course, was free from its effects. Although the boycott of foreign cloth was ostensibly directed against all countries, imports from Japan continued to arrive and were cleared into consumption, largely on account of their attractive prices. The movement against United Kingdom

textiles was most severe. Forward business was practically impossible in most markets and stocks were cleared with the greatest difficulty. There is no doubt whatever that a considerable part of the fall in the imports of United Kingdom cotton yarns and piece-goods, amounting approximately to Rs.23 crores is directly due to the boycott. The boycott movement was similarly very active in the case of cigarettes, and extended also to drugs, soap, cycles, tyres, bazaar metals and hardware and certain electrical accessories. It is in all these cases difficult to assess how much of the decline was due to political propaganda and how much to the economic depression, which would have had a severely restrictive effect quite apart from any political agitation. In large groups of imported articles such as machinery, certain types of iron and steel, metals and hardware, instruments and appliances, motor vehicles, &c., &c., India is not able to substitute for imports her own productions, and in these cases the boycott was never enforced. The indirect effects of this subversive political campaign such as the closing of markets, general suspension of business activity, tightness of money and widespread lack of confidence, were probably more pernicious and lasting than any other. In this connection I cannot do better than quote the words of the Hon. the Finance Member in his budget speech on February 28th, 1931. Sir George Schuster said :—

“ So far as the total volume of India's external trade is concerned, the main course of events has been determined by world economic conditions. Exports have kept up well in volume, and the total imports have not declined to a degree appreciably out of proportion to the drop in the value of the exports. On the other hand, certain classes of imports have shown major variations from the normal—notably cigarettes and cotton piecegoods, but, as to the latter, it is necessary to remember that a part of the variation might have been expected as a result of the higher import duties imposed last year.

“ On the other hand, although the course of external trade may have been mainly governed by economic causes, internal trade has suffered disastrously as a result of political disturbances. Unnecessary losses to private traders must have been very great, while enormous sums of money must have been diverted from productive purposes. This kind of effect is seen in Provincial budgets, but there must be much more which does not appear in any public accounts.

“ Lastly, and above all, the most damaging effects have been caused in what I may describe as the region of Finance. The implications of the movement have weakened confidence in India as a field for investment both at home and abroad, and this had led to a decline in the price of Indian securities, both Government and private, to a lack of credit for traders and of capital for new enterprise, and to a steady export of capital from the country. This has meant increased expenditure on loans for Government and has forced Government to take measures to protect the position which have resulted in high money rates, with a consequent increase in the difficulties of traders in these very difficult times.

“ I have stated the case in the preceding sentences with studied moderation, but I must guard against that moderation being misunderstood. The country has, it is true, survived the past year without irreparable disaster. But the reserves and credit of all—individuals and public authorities alike—have been seriously weakened, and any continuance of internal disorders is a matter which all who have the true interests of India at heart must view with

the gravest possible concern. It might, in fact, mean that India, on the day when she should be inaugurating her new constitution with bright hopes of success, would find herself, instead, struggling desperately for mere existence in a morass of economic troubles."

**The Outlook in the Import Trade.**—The outlook in the import trade is clouded by the ever deepening shadow of agricultural depression and the lack of any sign of improvement in the general economic situation. Prices of India's staple products still continue to fall and the cultivators, although fortunately they have sufficient foodstuffs to maintain themselves, are sinking further and further under their burden of debt. The agrarian situation is becoming very serious in most provinces, but particularly in the United Provinces and the Punjab. Although this year's monsoon has so far produced abundant rains, crops are being laid down at rates which leave no margin of profit to the grower. Conditions among the ryots are becoming desperate and until world-wide prices for agricultural produce improve and their purchasing power is thereby restored, there is little hope for any material revival in the imports of such items as cotton piecegoods, kerosene oil, certain metals, &c., which are widely consumed in country districts.

Conditions in the towns are almost equally depressed. Indian industries, with very few exceptions, have experienced the full effects of the slump. Production has been curtailed, the labour force has been reduced and unemployment is becoming a serious factor. Although the cotton mill industry received a decided stimulous owing to the combined effects of the increased tariff and the Swadeshi movement, the progress is slow and there are signs that the economic situation is reducing the demand even for country-made goods. Importers, dealers and merchants throughout the country have made such heavy losses in the past year or two and are still witnessing such steady depreciation in the values of the stocks they hold, that they are not disposed to enter into any forward transactions while the future is so uncertain. This complete lack of confidence affects both Indian and European traders alike.

The political situation, too, still causes great nervousness among traders in imported goods. Although the signature of the Delhi Pact in March resulted in the cessation of violent picketing and the position at the ports has undoubtedly improved, boycott activities have now been transferred to the upcountry consuming districts, where the movement is still active and where it is reported that every form of "peaceful" persuasion is being adopted against people trading in or wearing cloth of foreign manufacture. The clearances of imported goods for such storm centres as Gujarat and Kathiawar are still negligible. The movement is being kept alive by the provocative utterances of responsible Congress leaders who give the impression that the present is a period of "Truce" and that recourse may again be had to violent activities. Moreover, there is widespread fear in the bazaars that if the

Round Table Conference were to break down, a general revival of civil disobedience might ensue. In these circumstances, it is not surprising that not only Indian dealers but also many European importers are loath to enter into any fresh commitments until the future course of events, both political and economic, may be forecasted with greater certainty. It has been truly stated that "the formal withdrawal of a boycott is only partly helpful. It must be replaced by confidence that merits of no reservations."

So far as the trade in cotton textiles is concerned, readers interested should refer to the forecast which is made on pages 71-3. Notwithstanding the fact that stocks of imported goods at the ports are very light, that the country districts are practically bare of supplies and that present Lancashire prices would appear to be on a relatively safe level on which to operate, I do not anticipate any marked improvement in the near future beyond the replacement of types of goods which are in short supply and limited purchases to keep marks and styles on the market.

The valuable trade in machinery and plant and general engineering supplies, while not being affected so much by the political movement, is being severely restricted by the financial stringency and consequent curtailment of all Government expenditure on capital works such as railway construction and renewals, irrigation projects, and public works developments, *e.g.*, roads, bridges, buildings, &c. The railway capital programme is outlined on page 44 and shows further diminution. A study of the position of the more important irrigation, harbour, hydro-electric and other public works which is given in Chapter V, reveals the fact that the large schemes, which have provided such a valuable flow of orders for plant during the last few years, are now approaching completion. Owing to the desire of the Central and Provincial Governments to restrict their capital programmes on account of budget deficits, the high rate of interest and other "ways and means" difficulties, it is unlikely that funds will be made available for further large scale projects for some time to come. The prevailing depression has also imposed a check on the promotion of public utility companies for the supply of electric light and power, gas, water, &c., and on the extension of existing works. The increase in the number of cotton mills in Ahmedabad will provide a market for textile machinery and the general improvement in the cotton mill industry should stimulate renewals and replacements of textile plant. The heavy depression which has settled on other industries such as the jute, woollen, oil and flour mills; the coal and manganese mines, as well as the iron and steel and engineering works will inevitably reduce the demand for machinery and millwork for a considerable period.

In the iron and steel trades, competition from the Tata Iron and Steel Works is likely to restrict imports for some time. The Company is now in a position to roll most of the sections in regular

demand in the market and is pursuing a more aggressive selling policy, which has met with considerable success during the past year. The plant is steadily being extended and modernised and there is likely to be a material increase in the production of galvanised sheets. Although, as I have frequently maintained, the Indian market is sufficiently important to provide a valuable field for the products of both the Indian and the United Kingdom works, the tendency, during times of depression, such as the present, is for the local industry to improve its position at the expense of the imports.

All imported goods will be adversely affected by the all-round surcharges in the rates of import duty which were imposed by the last budget for revenue purposes. Quite apart from the existing protective duties on such items as iron and steel, certain railway track materials, paper, &c., &c., the general level of the revenue tariff is now pitched at rates which, in practice, afforded a considerable measure of protection to Indian industries and give added stimulus to that "Swadeshi" movement, which has been such a feature of the last few years, and which, in some quarters, has become an obsession, obliterating all considerations of value for money.

**General Position of British Trade in India.**—The following table, compiled by the Director of Statistics, clearly shows the percentage shares of the United Kingdom, the British Empire as a whole, and the principal foreign countries in the trade of India during the fiscal year 1930/31 as compared with the previous year and the average of the last five complete pre-war years, 1909/10 to 1913/14 :—

	Imports.			Exports, including re-exports.			Total Trade.		
	Pre-war average.	1929-30	1930-31	Pre-war average.	1929-30	1930-31	Pre-war average.	1929-30	1930-31
	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.
United Kingdom ... ..	63	43	37	25	22	24	40	31	30
British Possessions ... ..	7	9	9	16	14	16	12	12	12
<b>TOTAL BRITISH EMPIRE ... ..</b>	<b>70</b>	<b>52</b>	<b>46</b>	<b>41</b>	<b>36</b>	<b>40</b>	<b>52</b>	<b>43</b>	<b>42</b>
<b>TOTAL FOREIGN COUNTRIES ... ..</b>	<b>30</b>	<b>48</b>	<b>54</b>	<b>59</b>	<b>64</b>	<b>60</b>	<b>48</b>	<b>57</b>	<b>58</b>
<i>Principal Countries.</i>									
<b>BRITISH EMPIRE—</b>									
United Kingdom ... ..	62·8	42·8	37·2	25·1	21·9	24·0	40·0	30·9	29·6
Ceylon ... ..	0·5	0·7	0·9	3·7	4·2	5·0	2·4	2·7	3·3
Straits Settlements ... ..	2·1	2·6	2·4	3·4	2·5	2·8	2·9	2·5	2·6
Australia ... ..	0·7	2·3	1·5	1·4	1·8	2·0	1·1	2·0	1·8
Hongkong ... ..	0·7	0·3	0·5	4·1	1·0	0·7	2·7	0·7	0·6
Other British Possessions ... ..	2·9	3·0	3·6	3·4	4·6	5·1	3·2	3·7	4·5
<b>TOTAL BRITISH EMPIRE ... ..</b>	<b>69·7</b>	<b>51·7</b>	<b>46·1</b>	<b>41·1</b>	<b>36·0</b>	<b>39·6</b>	<b>52·3</b>	<b>42·5</b>	<b>42·4</b>
<i>Foreign Countries.</i>									
Japan ... ..	2·5	9·8	8·8	7·5	10·2	10·6	5·5	10·0	9·8
United States ... ..	3·1	7·3	9·2	7·5	11·6	9·4	5·8	10·1	9·3
Java ... ..	6·4	5·7	6·3	1·3	1·3	1·2	3·3	3·2	3·3
France ... ..	1·5	1·9	1·8	6·6	5·3	5·0	4·6	3·8	3·6
Italy ... ..	1·0	2·8	2·7	3·2	3·6	3·5	2·3	3·3	3·2
China (exclusive of Hongkong and Macao) ... ..	1·1	1·7	2·0	3·9	4·1	5·9	2·8	3·1	4·3
Belgium ... ..	1·9	2·8	2·8	5·3	3·8	3·4	3·9	3·4	3·1
Germany ... ..	6·4	6·6	7·5	9·8	8·3	6·3	8·5	7·6	6·8
Other Foreign Countries ... ..	6·4	9·7	12·8	13·8	15·8	15·1	11·0	13·0	14·2
<b>TOTAL FOREIGN COUNTRIES ... ..</b>	<b>30·3</b>	<b>48·3</b>	<b>53·9</b>	<b>58·9</b>	<b>64·0</b>	<b>60·4</b>	<b>47·7</b>	<b>57·5</b>	<b>57·6</b>
<b>TOTAL ... ..</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>

The decline in the total imports from the United Kingdom from Rs.103 crores to Rs.61 crores may be attributed to a combination of all the factors which have already been discussed. The decline in the percentage figure from 42·8 to 37·2, representing a drop of 5·6 per cent. in the United Kingdom's share of the import trade, is so abnormal that it can only be accounted for by the boycott of United Kingdom goods and their partial replacement by the products of other countries. I have, in these reports during the past twelve years, consistently called attention to the steady decline in the British percentage figure from its post-war peak of 61 in 1920/21 (a quite exceptional year) to 60 in 1922/23, 58 in 1923/24, 54 in 1924/25, 51 in 1925/26, 48 in 1926/27, 48 in 1927/28, 45 in 1928/29, and 43 in 1929/30. The past year, however, has witnessed a crisis in the trading relations of British exporters with Indian markets, which has in the textile trades temporarily dislocated many of the usual channels of distribution throughout the country, and the effects of which will be experienced for many years to come. The position is so serious as to warrant a detailed examination of the conditions obtaining in each of the trades principally affected. This will be found in Chapter II together with such conclusions as can be drawn from a most complex and baffling situation.

In the Appendices on pages 235 *et seq.* will be found a series of statistical tables, compiled by the Director-General of Commercial Intelligence and Statistics, which are designed to show the shares of all the leading countries in the trade of India, and, in addition, to provide an analysis of the trade in particular commodities so as to show the shares of the principal countries interested in each. Appendix I presents the total overseas trade of India in private merchandise in such a way as to indicate India's trade balances with the principal overseas countries. It will be noted that India's exports usually exceed her imports in the case of all countries with which she deals with the single exception of the United Kingdom. The phenomenal reduction in the imports from the United Kingdom in 1930/31, however, reduced the excess of imports from, over exports to, the United Kingdom to Rs.7 crores as compared with Rs.34 crores in 1929/30 and Rs.41 crores in 1928/29. This figure is the lowest recorded and it should also be observed that the balance of India's trade in merchandise with the rest of the British Empire including the United Kingdom, which is normally an adverse one, actually turned in favour of India to the extent of Rs.14 crores in 1930/31. It is a great potential source of weakness that the United Kingdom should normally take from India a much less value of goods than she exports to India. Apart from the working of economic laws there has, for many years, been a tendency all over the world for a country to purchase its imports from those countries which are the most important customers for its own produce. India's most important markets, apart from the

United Kingdom, are Japan, the United States, Germany, China, France and Italy and there is every likelihood that she will tend to increase her purchases from those countries.

Appendix II shows the position, both before the war and during the last two years, of the principal suppliers in some of the most important items of the import trade. It may be summarised in the following statement of the present percentages :—

Article.	United Kingdom	United States.	Germany.	Belgium.	Italy.	Japan.
Cotton manufactures ...	58.0	1.0	0.4	0.2	1.5	30.3
Iron and steel ...	52.3	4.6	6.9	24.9	—	—
Machinery ...	74.7	11.4	8.2	—	—	—
Hardware ...	36.4	12.5	29.9	0.9	—	5.8
Motor cars, motor cycles, &c. ...	23.7	48.3	1.5	0.4	4.5	0.2
Instruments and appliances ...	53.4	16.4	15.7	2.1	2.0	1.9
Chemicals ...	54.0	5.2	18.3	—	7.3	1.7
Paper ...	31.2	4.5	9.7	—	—	—

In Appendix III, Tables A—G, will be found statements showing the values of the principal articles imported from the United Kingdom, Italy, Belgium, Germany, Japan, the United States and France, over a series of years including the pre-war period. These show the nature of the competition which is being encountered and its varying intensity in the post-war period.

**Foreign Competition.**—The following statement shows the heavy fall in the value of the imports from our principal competitors together with their percentage share of the total imports :—

	Values of imports.		Share of total imports.	
	1929-30	1930-31	1929-30	1930-31
	Rs. (lakhs)	Rs. (lakhs)	Per cent.	Per cent.
Germany ...	15,79	12,41	6.6	7.5
Belgium ...	6,79	4,67	2.8	2.8
Italy ...	6,73	4,51	2.8	2.7
Japan ...	23,58	14,53	9.8	8.8
United States ...	17,66	15,15	7.3	9.2

*German.*—Although Germany was able to increase her proportion of the trade by just over 1 per cent., it will be found that, with the exception of dyestuffs and salt, all the principal articles of import registered considerable reductions. Even in the case of dyestuffs the quantities were reduced from 12.8 million lbs. to 11.9 million lbs. Imports of hardware fell by Rs.58 lakhs to Rs.108



lakhs, machinery by Rs.56 lakhs to Rs.1,18 lakhs. Iron and steel products by Rs.24 lakhs to Rs.75 lakhs and brass and copper by Rs.29 lakhs to Rs.1,27 lakhs. Considerable reductions are also shown under woollen manufactures, glass and glassware, paper, liquors, beet sugar and cotton manufactures. It may be stated, therefore, that so far from being in a position to take advantage of the boycott on United Kingdom goods to replace them with German articles, German traders only suffered in less degree than those of the United Kingdom.

*Belgian.*—The total imports of Belgian goods fell by Rs.2,12 lakhs to Rs.4,67 lakhs. As usual, the imports of Belgian iron and steel represented more than half the total trade, but these showed a decline from Rs.4,04 to Rs.2,71 lakhs. Cotton manufacturers, precious stones, artificial silk, glass and glassware and machinery were all reduced. It is always difficult to assess the true value of Belgian trade as considerable quantities of German, Dutch and French goods are shipped from Antwerp and appear in the returns as being of Belgian origin.

*Italian.*—Italy also has suffered severely from the depression in the Indian market: Total imports fell by Rs.2,22 lakhs to Rs.4,51 lakhs, the principal decreases being in coloured piecegoods (which shrank from 23 million yards valued at Rs.83 lakhs to 9 million yards valued at Rs.28 lakhs); silk, woollen and artificial silk piecegoods, rubber tyres and motor cars. On the other hand, arrivals of Italian artificial silk yarn advanced by over one million lbs. and by Rs.5 lakhs in value. Considerable quantities of German and Czechoslovak goods are shipped by Italian steamers from Genoa and Venice, some of which appear in the returns as being of Italian origin.

*Japanese.*—Imports from Japan have been seriously affected by the slump and declined by Rs.9,05 lakhs to Rs.14,53 lakhs. The imports of cotton manufactures alone fell from Rs.15,74 lakhs to Rs.7,66 lakhs, both grey and coloured goods being materially reduced. Bleached goods, on the other hand, again showed a noteworthy advance from 13,880,453 yards valued at Rs.33 lakhs to 28,105,352 yards valued at Rs.57 lakhs. The severe competition which United Kingdom merchants are experiencing from Japanese cotton goods is treated at length in Chapters II and VI where the remarkable further advance of 13 million yards in artificial silk fabrics is fully discussed. Apart from the textile group, which is directly competitive, reductions are noticeable in the case of glass and glassware, hardware, earthenware and porcelain, toys, brass products, camphor, haberdashery, &c., &c. The remarkable further increase in the imports of Japanese footwear is dealt with on page 208.

*American.*—Notwithstanding the fact that the United States has increased her percentage by 2 points, it cannot be said that

American goods have largely displaced United Kingdom products. Imports of articles from the United States have been reduced under every important heading with the exception of mineral oils, raw cotton, rubber tyres and wrought copper, but the total decline of Rs.2,54 lakhs was proportionately less than in the case of other competing countries. Imports of motor vehicles fell from Rs.4,45 to Rs.2,41 lakhs; machinery and millwork from Rs.1,75 to Rs. 1,64 lakhs (although imports of electrical machinery were higher by Rs.9 lakhs); cotton textiles showed a marked decline at Rs.64 lakhs, mostly in the case of fents. Shipments of hardware, aluminium, boots and shoes, provisions and apparel, were all reduced. Owing to the relatively low price of the American staple and the tendency towards finer spinning on the part of the Indian mills, imports of American cotton rose by 3,600 tons and Rs.63½ lakhs.

*Imports from Soviet Russia.*—One feature of the past year has been the increase in the imports from Russia proper from Rs.45½ lakhs to Rs.103¾ lakhs. These comprised Rs.56 lakhs worth of kerosene oil, Rs.45 lakhs of beet sugar, Rs.43,000 worth of tea chests and Rs.2½ lakhs of unenumerated articles. In addition, Rs. 121½ lakhs of kerosene oil were imported from Georgia and Rs.64¾ lakhs from Azerbaijan. There is reason to believe that other goods of Russian origin were shipped via Hamburg. Small trial shipments of Russian alkali products were imported during the period and quoted at very low rates. It would seem probable that we shall see more of Russian products on the Indian market as the "Five Year Plan" progresses.

**The Balance of Trade.**—The Controller of the Currency in his informative and lucid report for 1930/31, on which I have very freely drawn for the ensuing comments, gives the following statement which compares India's visible balance of accounts during the year with the figures of the preceding two years and the averages of the last ten pre-war years ended 1913/14 and the first ten post-war years ended 1929/30. The detailed figures work up to a *plus* or *minus* balance (*plus* representing net export and *minus* representing net import) for each of the three main heads of classification, namely (1) private imports and exports of merchandise, (2) private imports and exports of treasure and (3) remittances through Government, leading up to a *plus* or *minus* total for the transactions as a whole.

	Average of 10 pre-war years ending 1913-14	Average of 10 years ending 1929-30	1928-29	1929-30	1930-31
	(In lakhs of rupees)				
Exports of Indian merchandise (private) ... ..	} +1,94,67 {	+3,14,04	+3,30,13	+3,10,80	+2,20,46
Re-exports of Foreign merchandise (private) ... ..		+ 11,68	+ 7,83	+ 7,13	+ 5,14
Imports of Foreign merchandise (private) (b) ... ..		-1,22,93	-2,42,59	-2,51,49	-2,38,95
<b>Balance of Trade in Merchandise (private)</b> ... ..	<b>+ 71,74</b>	<b>+ 83,13</b>	<b>+ 86,47</b>	<b>+ 78,98</b>	<b>+ 61,98</b>
Gold (private) (a) ... ..	- 20,87	- 24,04	- 21,20	- 14,22	- 12,75
Silver (private) (a) ... ..	- 7,67	- 15,49	- 13,04	- 11,89	- 11,65
Currency Notes (private) (a) ... ..	—	- 27	- 12	- 9	- 3
<b>Balance of Transactions in Treasure (private) (a)</b> ... ..	<b>- 28,54</b>	<b>- 39,80</b>	<b>- 34,36</b>	<b>- 26,20</b>	<b>- 24,43</b>
<b>Total Visible Balance of Trade</b> ... ..	<b>+ 43,20</b>	<b>+ 43,33</b>	<b>+ 52,11</b>	<b>+ 52,78</b>	<b>+ 37,55</b>
Council bills and telegraphic transfers paid in India, purchases of sterling from banks and firms in India and payments for sterling taken over in London from local bodies	- 38,47	- 26,00	- 41,02	- 20,39	- 7,26
Sterling transfers on London sold in India ... ..	+ 1,22	+ 3,05	—	—	+ 7,75
Transfers of Government securities ... ..	- 71	- 6	- 1	- 29	- 8
Interest drafts on India in respect of Government of India securities ... ..	—	- 35	- 36	- 33	- 33
<b>Balance of Remittances of Funds</b> ... ..	<b>- 37,96</b>	<b>- 23,36</b>	<b>- 41,39</b>	<b>- 21,01</b>	<b>+ 8</b>
<b>Total Visible Balance of Accounts</b> ... ..	<b>+ 5,24</b>	<b>+ 19,97</b>	<b>+ 10,72</b>	<b>+ 31,77</b>	<b>+ 37,63</b>

(a) Excludes transactions which do not enter into the balance of trade.

(b) Exclusive of the value of railway materials imported direct by State Railways working under Company management.

It will be noted that while exports of Indian merchandise on private account fell by approximately 90 crores or 29 per cent., imports of foreign merchandise on private account were reduced by approximately 70 crores or 31½ per cent. The total visible balance of trade in favour of India amounted to Rs.37½ crores as compared with Rs.52¾ crores in the previous year.

**The Course of Exchange.**—The highest and lowest quotations for telegraphic transfers on London were 1s. 5⅞*d.* in March, 1931, and 1s. 5¼*d.* during most of the year. The Controller states that :—

“ The total amount of sterling purchased during the year amounted to £5,395,000 at an average rate of 1s. 5⅜½*d.* Exchange opened in April at 1s. 5⅞*d.* There was no great pressure for money to meet trade demand, but owing to the disparity of the rates between London and India and the opportunity for profitable investment afforded by the Government of India treasury bills, banks were prepared to sell ready exchange against their treasury bill purchases in the early part of the year. The total amount purchased in April was £2½ millions. The highest rate tendered was 1s. 5⅜½*d.* and tenders below that rate were not accepted. The same conditions obtained in the first week of May. In the second week of May exchange showed signs of weakening and at the auction of the 14th May £20,000 only was tendered at 1s. 5⅜½*d.* and was accepted. A further amount of £20,000 was tendered in the following week at the same rate and was also accepted. After that spot exchange gradually receded to 1s. 5⅜½*d.* and on the 4th June it was announced that tenders would not be received until further notice. After a temporary recovery in early July exchange became definitely weak and remained so until October, the highest rate touched in August and September being 1s. 5⅜½*d.* and the lowest 1s. 5¼*d.* notwithstanding that treasury bills were sold freely throughout this period and contractions to the extent of Rs.20 crores were made against rupee securities. At this time the civil disobedience movement was in full swing and business was seriously dislocated by political disturbances. There was also a considerable volume of organised propaganda, particularly in Western India, in favour of a change in the rupee ratio. These influences not only stopped trade but also led to nervousness in outside money markets which took the form of less willingness to invest their funds in India even for short periods. In the beginning of October there was a slight change for the better, exchange steadied up, and banks again began to take an interest in treasury bills investments. It was considered that Government had a fair chance of making purchases when exchange was steady at 1s. 5⅞*d.*, and on the 23rd October £500,000 was offered for tender. Tenders for £50,000 only were received of which £25,000 was at 1s. 5⅞½*d.* which was accepted. This had the immediate effect of weakening the market which receded to 1s. 5⅜½*d.* The market again slightly strengthened at the beginning of November and the amount offered at the auction sale of the 5th November was fully tendered at 1s. 5⅞½*d.* and accepted. In the following week at the auction of the 12th November £150,000 only were offered and accepted at 1s. 5⅞½*d.* and at the auction of the 19th November no tenders were received. An announcement was made therefore that Government had withdrawn from the market for the time being. The middle of November saw the beginning of a distinct change for the worse. A period of consistent weakness set in which lasted until the end of February. This was partly due to the fact that rumours were freely circulated to the effect that one of the recommendations to be made at the Round Table Conference which was to meet in London on the 12th November was that a reversion should be made to the old statutory 1s. 4*d.* ratio. In the result not only were Government unable to purchase sterling during these months, but a demand arose for the sale of sterling by

Government at the statutory rate of 1s. 5½<sup>d</sup>. The market was governed practically entirely by the political situation throughout this period and the amount of sterling sold between November and March totalled £5,650,000. The tone of the market improved considerably towards the end of the financial year as a result of the statement made in the House of Commons by the Secretary of State. The conclusion of the political negotiations which were proceeding at Delhi had a still more salutary effect, and the tone of the exchange market in common with that of all other markets showed an immediate improvement and the spot rate touched 1s. 5¾<sup>d</sup>. in the third week of March.

“ Sterling to the amount of £5,395,000 only having been purchased through the market during the year it was necessary to meet the Secretary of State's requirements by other means, such as remittance through the Paper Currency Reserve or by borrowings in London. There were three sterling issues during the year, totalling £31 millions. In addition to these loans temporary advances to the extent of £6 millions were taken from the London Office of the Imperial Bank of India, £4 millions in July and £2 millions in August of which only £2 millions were repaid during the year. The entire holding of the Paper Currency Reserve in England amounting to £2,481,000, and sterling securities held in the Gold Standard Reserve in England for £6,247,200 net were transferred to the Home Treasury primarily to meet sales of sterling against corresponding contraction of rupees in India; £2,994,200 of this amount were utilised to meet ordinary payments from the Home Treasury.”

**Money Market Conditions in India During the Year.—**The year opened, the Controller states, with the bank rate at 6 per cent. and it remained at that level until the 10th July when it was reduced to 5 per cent. Owing to the fall in prices the demand for finance throughout the year was very much less than usual, and had it not been for the continuous issue of treasury bills by Government, money rates would have fallen to a very low level in the slack season. The extent to which the money situation was governed by treasury bills can be gauged from the following—three and nine months' bills were on offer to the extent of two crores weekly from the 1st April to the 1st July, when nine months' bills were discontinued. The sale of three months' bills was suspended from the 23rd July to the 11th August, but weekly offers were resumed with the addition of six months' bills from the 12th August, and from the 3rd March three, six and nine months' bills were sold to the extent of two crores in the aggregate weekly. It will be understood that intermediate bills were offered regularly throughout the week at fixed rates. The average yields of the three classes of three, six and nine months' bills for the whole year were 5·25, 5·05 and 5·01 per cent. respectively. In addition to these sales the currency was contracted during the year to the extent of 38½ crores net in order to remedy the situation created by the fall in prices and consequent redundancy of money. The bank rate was raised to 6 per cent. from the 20th November and again to 7 per cent. on the 15th January, when the seasonal demand for money to finance the cotton and seed crops set in. The rate remained at 7 per cent. until the close of the year. The disparity between the Indian official bank rate and the discount rates which obtained in outside international money markets during the year was very marked.

**The Public Debt.**—The following table, abstracted from the Currency Report, shows the interest-bearing obligations of the Government of India outstanding at the close of the last three financial years and also the interest-yielding assets held against these obligations. The Controller points out that the figures for the Cash Balance, Cash Certificates, Post Office Savings Banks Deposits and Treasury Bills are estimates only, the final actuals not being available until several months after the close of the year :—

	31st Mar., 1929	31st Mar., 1930	31st Mar., 1931
<b>IN INDIA.</b>			
	(In crores of Rupees)		
Loans (a) ... ..	390·73	405·10	417·85
Treasury Bills in the hands of the Public	4·00	36·04	55·38
Treasury Bills in the Paper Currency Reserve ... ..	39·15	29·21	5·89
<b>Total Loans, etc. ... ..</b>	<b>433·88</b>	<b>470·35</b>	<b>479·12</b>
<b>Other Obligations—</b>			
Post Office Savings Banks ... ..	34·49	37·13	37·08
Cash Certificates ... ..	32·30	35·00	38·44
Provident Funds, etc. ... ..	60·52	65·41	70·33
Depreciation and Reserve Funds ... ..	31·09	30·18	23·87
Provincial Balances (b) ... ..	10·43	10·21	6·11
<b>Total Other Obligations ... ..</b>	<b>168·83</b>	<b>177·93</b>	<b>175·83</b>
<b>TOTAL IN INDIA ... ..</b>	<b>602·71</b>	<b>648·28</b>	<b>654·95</b>
<b>IN ENGLAND.</b>			
	(In millions of £'s)		
Loans (a) ... ..	283·31	289·03	315·97
War Contribution ... ..	16·72	16·72	16·72
Capital value of liabilities undergoing redemption by way of terminable railway annuities ... ..	53·35	51·86	50·32
India Bills ... ..	—	6·00	—
Imperial Bank of India Loans ... ..	—	—	4·05
Provident Funds, etc. ... ..	0·43	2·54	0·70
<b>TOTAL IN ENGLAND ... ..</b>	<b>353·81</b>	<b>366·15</b>	<b>387·76</b>
	(In crores of Rupees)		
Equivalent at 1s. 6d. to the Rupee ... ..	471·75	488·20	517·01
<b>Total interest-bearing obligations ... ..</b>	<b>1,074·46</b>	<b>1,136·48</b>	<b>1,171·96</b>
<b>Interest-yielding assets held against the above obligations:—</b>			
(i) Capital advanced to Railways ... ..	700·69	730·79	745·29
(ii) Capital advanced to other Commercial Departments ... ..	21·81	22·70	23·41
(iii) Capital advanced to Provinces ... ..	137·52	142·60	149·14
(iv) Capital advanced to Indian States and other interest-bearing loans	15·49	17·65	19·60
<b>Total interest-yielding assets ... ..</b>	<b>875·51</b>	<b>913·74</b>	<b>937·44</b>
Cash, bullion and securities held on Treasury account ... ..	28·34	45·36	35·18
<b>Balance of total interest-bearing obligations not covered by above assets ... ..</b>	<b>170·61</b>	<b>177·38</b>	<b>199·34</b>

(a) These figures represent the nominal amounts of loans outstanding and also include comparatively small amounts of expired loans which do not bear interest.

(b) The figures represent those portions of provincial balances which bear interest either because they form part of the old Famine Insurance Fund or the present Famine Relief Fund or because they have been placed with the Government of India on fixed deposit.

The soundness of India's debt position is clearly shown. Although there was an increase of Rs.22 crores in the unproductive debt mainly due to the revenue deficit and the loss on sale of silver during the year, India possesses interest-yielding assets plus cash, bullion and securities held on Treasury account amounting to Rs.972.62 crores to set against her total interest-bearing obligations of Rs.1,171.96 crores, leaving an uncovered balance of only Rs.199.34 crores. When the proportion of the debt which is invested in railways and irrigation projects is realised, both magnificent assets which should show increasing returns and a growing contribution to the relief of taxation, it will be granted that the debt position of India rests on a very firm basis.

**The Year's Loans.**—The Controller describes the Government of India's public borrowings during the year as follows :—

**The Rupee Loan.**—“ The rupee loan was a tax bearing 6 per cent. issue. It was issued at par and is repayable at par on the 15th August, 1936, or, at the option of Government, on any half-yearly interest date after the 15th August, 1933, subject to three calendar months' notice. The loan was opened for subscription on the 28th July and was for an unlimited amount. It was announced in the notification that it would be closed on the 6th August. Subscriptions to the loan were payable in cash, in 6 per cent. bonds, 1930, and in Treasury bills. The bonds were accepted as the equivalent of cash at their full maturity value. The Treasury bills were accepted at their face value less a discount for the unexpired portions of their currency at the rate of 3 per cent. per annum in respect of bills maturing up to the 31st August, 1930, of 4 per cent. per annum in respect of those maturing between the 1st September, 1930, and the 31st October, 1930, and of 4½ per cent. per annum for later maturities. Interest on bonds tendered for conversion was paid up to the due date of maturity, namely, the 14th August, 1930, irrespective of the date on which they were tendered for conversion.

“ The total amount subscribed was Rs.29,70,80,900 of which Rs.12,92,26,700 was by tender of cash, Rs.8,32,05,500 by tender of 6 per cent. bonds, 1930, and Rs.8,46,48,700 by tender of Indian Treasury bills. General market conditions when the loan was floated were by no means favourable. Trade was depressed and a general want of confidence prevailed. The stock market, particularly in Bombay, was disorganised and dominated by political excitement. When the loan was announced it was freely rumoured that an attempt would be made to boycott it and much propaganda was disseminated with that object. In spite of these adverse factors the loan was on the whole successful. The terms offered represented a rise of nearly ½ per cent. in the Government borrowing rate, but it is clear that in the economic and political circumstances of the time a high rate was essential to attract subscriptions.

“ When the loan was announced the prices of securities fell in adjustment to the yield of the new loan. This was unavoidable, but after the loan closed a welcome change came over the market. Prices steadied and the new loan quickly went to a satisfactory premium. The disturbance, caused by the new issue, therefore was not very material. An interesting feature of this loan was the very large number of applications from small investors, that is to say, applications for sums of Rs.10,000 and less. These applications formed about 83 per cent. of the total.”

**The Sterling Loans.**—“ Three sterling loans were floated in London during the year :—

(1) India 6 per cent. Bonds, 1933-35. Issued in May, 1930, at 99 per cent. and the total amount issued was £7,000,000. The bonds are redeemable at



par on June 15th, 1935, or on any half-yearly interest date after June 15th, 1933, with three calendar months' previous notice ;

(2) India 6 per cent. Bonds, 1935-37. Issued in October, 1930, at par, and the total amount issued was £12,000,000. The bonds will be repaid at par on October 15th, 1937, or on any half-yearly interest date after October 15th, 1935, with three calendar months' previous notice.

(3) India 5½ per cent. Stock, 1936-38. Issued in February, 1931, at £97 and the total amount issued was £17,181,250, of which £12,000,000 was received in cash and £5,181,250 issued by conversion of India 5½ per cent. Stock, 1932. The loan is repayable at par on July 15th, 1938, or on any half-yearly interest date after July 15th, 1936, with three calendar months' previous notice. Of this loan, £8,420,000 only was collected during the year under report, the balance being realised in the next financial year."

**Prices of Rupee Securities.**—" Prices of 3½ per cent. paper and the 4 per cent. 1960-70 loan declined gradually during the first four months of the year, the 3½ per cent. paper showing a fall of four points in April. This was in the main due to two causes, nervousness in London regarding the political situation in India reflected in a fall of nearly three points in the 3½ per cent. India Sterling Stock, and the tendency mentioned in another part of this report for investors to sell their rupee paper and remit the proceeds abroad. Another important cause was the competition of Government treasury bills. The latter absorbed undoubtedly a considerable amount of floating money which might otherwise have been available for investment in rupee securities. A further cause which contributed to the weakness in the market during this period was the dislocation of trade caused by frequent closures of the stock exchange in Bombay on political grounds. Prices steadied in the first half of June partly as a result of the successful flotation of the 6 per cent. India sterling bonds, 1933-35, issued on the 20th May. This steadiness was only temporary and the knowledge that a new rupee loan would have to be floated at an early date kept buyers out of the market. As a result all loans, including the tax free loans, showed a decline, and the 3½ per cent. paper touched Rs.62-1-0. The publication of the new loan notification caused a further drop, which, however, proved to be temporary. The new loan which immediately became popular went to a premium and the prices of other securities appreciated slowly. Prices gradually rose throughout September and October, mainly as a result of the buoyancy exhibited by Indian sterling stocks during this period. As pointed out in last year's report, arbitrage business in rupee and sterling securities has increased substantially in recent years, and there is a tendency for the prices of rupee loans to follow fluctuations in London quotations very much more closely than used to be the case. From November to February security prices showed a gradually declining tendency. This is usual, as during these months the peak of the busy season is reached when money is required to meet the seasonal trade demand. Bank rate was raised to 6 per cent. on the 20th November and again to 7 per cent. on the 15th January. The existence of tighter money conditions kept the market from showing any signs of life, and moreover it was known by this time that the forthcoming budget of the Government of India was likely to show a large deficit as a result of the depressed state of trade throughout the year, so that investors in securities were influenced by fears of a possible increase in the income tax. There was a slight improvement in the early part of March, due to the improved political outlook and the market closed with the 3½ per cent. paper at Rs.63-3-0, a drop of Rs.5-11-0 over the twelve months of the financial year."

**The Budget, 1931/32.**—The Hon. the Finance Member of the Government of India, in introducing the budget, summarised the position as compared with that provided for in the budget estimate for 1930/31, as follows :—

	Rs. (lakhs).
Deterioration under important revenue heads, viz., Customs, taxes on income, salt and opium (net) ... ..	12,10
Deterioration under Posts and Telegraphs (including the Indo-European Telegraph Department) ... ..	89
Deterioration under Finance Headings, viz., debt services, currency and Mint ... ..	1,38
Deterioration under other heads ... ..	5
Total ... ..	14,42

which, as the budget estimates showed a surplus of Rs.86 lakhs, revealed an estimated deficit in 1930/31 of Rs.13.56 crores.

The estimates for 1931/32 allow for a deterioration as compared with 1930/31, of Rs.13.16 crores in tax revenue, Rs.1.18 crores on Commercial Departments and Rs.3.76 crores on general Finance headings—a total of Rs.18.10 crores, which, allowing for a surplus of Rs.86 lakhs provided in the estimates for 1930/31, gave a net deficit of Rs.17.24 crores. Allowing for various economies and a windfall realisable from the sale of the Indo-European Telegraph undertaking, amounting in all to Rs.2.73 crores, the final estimated deficit for 1931/32 amounted to Rs.14.51 crores. To cover this, taxation in the form of Customs duties and taxes on income amounting to Rs.14.82 crores was incorporated in the Indian Finance Act, 1931, leaving a small estimated surplus of Rs.31 lakhs.

*Increased Import Duties.*—As the United Kingdom exporter is mainly interested in alterations in the customs tariff, it will suffice here to summarise the revision in the Import Schedule. The changes in the customs tariff introduced by the Indian Finance Act, 1931, fall into two distinct classes, viz., increases in the substantive rates and additional impositions in the form of surcharges. In the first category, the duty on ale, beer, porter, cider and other fermented liquors was raised by about 66 per cent. above the old level, while duties on wines and spirits (except denatured spirit and spirit used in drugs and medicines) were raised by between 30 and 40 per cent. Duties on all grades of sugar (except molasses) and sugar candy were raised by Rs.1.4 per cwt. and that on silver from 4 annas to 6 annas per ounce. Betelnuts, spices and exposed cinematograph films were transferred from the general rate of 15 per cent. to the "luxury" rate of 30 per cent. *ad valorem*.

In the second category, a surcharge of 2½ per cent. was imposed on articles already bearing 10 per cent. duty, 5 per cent. on articles bearing the general rate of duty of 15 per cent., and 10 per cent. on articles already liable to the "luxury" rate of 30 per cent. Other important surcharges are 15 per cent. on cigars, Rs.1-8-0 per thousand on cigarettes, 12 annas per lb. on unmanufactured tobacco, 9 pies per gallon on kerosene, 2 annas per gallon on motor spirit, Rs.2-8-0 per ton on batching oil, 4 pies per gallon on lubricating oil, 2½ per cent. on fuel oil, 10 per cent. on arms and

motor cars, motor cycles, &c.,  $2\frac{1}{2}$  per cent. on artificial silk yarn and thread,  $7\frac{1}{2}$  per cent. on silk mixtures and Rs.2 per ton on Portland cement. A surcharge of 5 per cent. was imposed on cotton piecegoods. In addition, the excise duties on motor spirit, kerosene, and silver bullion were raised by rates corresponding to the increases in the Customs duties on these items, the enhanced rates being 8 annas per gallon,  $2\frac{1}{4}$  annas per gallon, and 6 annas per ounce respectively.

All these changes in the Customs and Excise duties came into effect on March 1st, 1931.

**The Railway Budget.**—The Hon. Member for Commerce and Railways, reviewing the financial year 1930/31, stated that budget estimates had provided for total receipts from all sources of Rs.109 $\frac{1}{2}$  crores and total expenses, including interest and all other charges, of Rs.103 $\frac{1}{2}$  crores. Revised estimates, however, showed that the total receipts would not exceed Rs.96 $\frac{3}{4}$  crores while the total charges although Rs.1 $\frac{1}{2}$  crores below the original estimate, would amount to nearly Rs.102 crores. They were faced therefore with a loss of Rs.5 crores 12 lakhs, in addition to which the sum of Rs.5 crores 74 lakhs would have to be found as their contribution to general revenues. It was therefore necessary to withdraw Rs.10 crores, 86 lakhs from the reserve, instead of adding Rs.34 lakhs to it as originally estimated.

The budget estimates for 1931/32 anticipate total receipts from all sources amounting to Rs.102 $\frac{1}{2}$  crores and total charges of Rs.101 $\frac{1}{4}$  crores, leaving a net gain from all lines of Rs.1 $\frac{1}{4}$  crores. The contribution to general revenues will be Rs.5 crores 36 lakhs which will involve a further withdrawal of Rs.4 crores 15 lakhs from the reserve.

In reviewing the year 1930/31, the Commerce Member stated:—

“ The surplus on the commercial lines after providing for all charges except interest is about Rs.28 crores, whereas the interest debitable to the Railways is a little over Rs.31 crores. The deficit of nearly 11 crores therefore means this, that the earnings of the railways fell short of the amount necessary to provide for full interest charges by 3 crores, the loss on the strategic railways was  $2\frac{1}{4}$  crores, and the contribution to general revenues  $5\frac{1}{4}$  crores. It has always been recognised that the loss on the strategic railways is a fair charge against general revenues rather than against the earnings of the commercial lines, and it is for this reason that, under the separation convention, the loss is deducted from the surplus on the commercial lines before arriving at the figure of the contribution payable. It was also recognised that we could not expect in bad years to be able to earn our full contribution to general revenues, and on this account the Reserve Fund was created out of the profits of the years of prosperity. In effect, therefore, the position is this, that looking at our commercial lines purely as a business proposition and ignoring for the moment the loss on strategic railways and the contribution, the loss on the commercial lines is only Rs.3 crores. When the adverse circumstances of the current year are taken into account with the extreme depression in trade due to the fall in world prices and aggravated by

all the circumstances connected with the civil disobedience movement, unsatisfactory though the results are, I do not think they give ground for unmixed pessimism."

**Further Curtailment of Railway Capital Expenditure.—** United Kingdom suppliers of railway plant have suffered severely by the curtailment of the Indian railway programme of capital works and new construction and will, therefore, receive little comfort from the outline of the capital programme for 1931/32 which was given by the Chief Commissioner of Railways in the following terms :—

" If our budget estimate last year was a modest one it is still more so this year. We are providing for a total expenditure during 1931-32 of Rs.21 crores 70 lakhs, of which Rs.8 crores 25 lakhs will be expenditure from the Depreciation Fund. Material to the value of 2 crores of rupees already in stock will be utilised for our new works so that the actual new capital which it will be necessary to find will be only Rs.11 crores 45 lakhs. We are again concentrating on completing works already in hand and on works which will increase the capacity of our main lines. In other words, in these times of scarcity we are making every endeavour to consolidate our position so that when the times of plenty come again our main trunk lines will be fully equipped to take the additional traffic which must follow construction of new lines in undeveloped country. Rs.290 lakhs are allotted for capital expenditure for the completion of new lines under construction and at the end of the year we hope to have all lines now under construction opened to traffic except the Sagaing Bridge over the Irrawaddy, the Lucknow-Sultanpur-Zaffarabad Railway, and the Tangla-Belsiri Railway in the north-east of India. Open line works in progress have been allotted Rs.410 lakhs, of which Rs.98 lakhs will come from the Depreciation Fund and if our anticipations are realised at the end of the year there will be only two works now in hand, the Dohad Workshops on the Bombay, Baroda and Central India Railway and the doubling of the Cawnpore-Tundla Section of the East Indian Railway, which will require substantial amounts for their completion during subsequent years. The only new work of any magnitude which it is proposed to take up during the year is the Narbadda Bridge on the main line of the Bombay, Baroda and Central India Railway between Bombay and Delhi. The cost of this is estimated at Rs.87 lakhs, and an allotment of Rs.15 lakhs has been made. A weak bridge of this description affects the capacity of the whole section and its renewal is overdue. The position at the end of the year will be that our commitments for completion of works will be reduced to Rs.357 lakhs, of which Rs.46 lakhs will come from the Depreciation Fund.

" Turning to our programme for rolling stock. This, after a detailed examination with railway administrations, we have reduced to Rs.5½ crores of rupees, of which Rs.2¼ crores will come from the Depreciation Fund. It has only been possible to get to this figure by redistribution of existing rolling stock between the various railways. By this means it has been found possible to avoid purchases amounting to nearly half a crore. Other avenues of savings have been explored, e.g., it has been found possible by reconditioning second-hand wheels for carriages and wagons to make a further saving of just over Rs.12 lakhs."

**Indian Joint Stock Companies in 1930/31.—Flotations.—** After showing an upward tendency during the years 1927/28 to 1929/30, there has been a setback during the past year. The following statement shows the position over a period of years :—

Year.	Companies registered.		Aggregate authorised capital.		Average authorised capital per company.
	No.	Index No. (pre-war year = 100).	Amount.	Index No. (pre-war year = 100)	
1913-14 (pre-war)	356	100	Rs.000's omitted. 66,91,53	100	Rs.000's omitted. 18,79
1925-26 ...	472	133	30,06,08	45	6,37
1926-27 ...	529	149	19,39,09	29	3,67
1927-28 ...	626	176	17,57,04	26	2,81
1928-29 ...	725	204	27,37,81	41	3,78
1929-30 ...	842	237	61,66,27	92	7,32
1930-31 ...	734	206	21,76,09	33	2,96

During the past year increases in the authorised capital were noticeable under the following heads:—Investment or Trust (+Rs.72 lakhs); Estate, Land and Building (+Rs.63 lakhs); Jute Mills (+Rs.54 lakhs); Motor Traction (+Rs.46 lakhs); and Iron, Steel and Shipbuilding (+Rs.44 lakhs). As I have repeatedly stated the amount of authorised capital is a very unsafe guide to the actual state of affairs, as in the majority of Indian concerns the paid-up capital is only a small fraction of the authorised capital. Companies in India go to allotment on very small subscriptions.

*Liquidations.*—269 companies with a total authorised capital of Rs.35 crores, having ceased work, went into liquidation or were finally dissolved during the year 1930/31. These included 83 general trading companies, 18 banks, 18 printing, publishing and stationery companies, 15 Nidhis and Chit Associations, 13 tea planting companies, ten mining companies and nine entertainment companies.

**Indian Working Class Cost of Living Index—Bombay.**—This index figure, as might be expected, has followed the heavy fall in wholesale commodity prices and declined during the year from 41 per cent. in March, 1930, to 11 per cent. in March, 1931. The tendency is still downwards. The articles included in the index are cereals, pulses, other articles of food, fuel and lighting, clothing and house rent. The articles have been given the relative importance which each bears to the total all-India aggregate expenditure. No allowance is made for any change in the standard of living since July, 1914.

(All items : percentage increase over July, 1914).

	1924	1925	1926	1927	1928	1929	1930	1931
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
January ... ..	59	57	55	56	54	49	47	17 (a)
February ... ..	56	57	54	55	48	48	44 (a)	13 (a)
March ... ..	54	59	55	55	45	49	41 (a)	11 (a)
April ... ..	50	58	53	53	44	48	40 (a)	11 (a)
May ... ..	50	56	53	52	47	47	39 (a)	10 (a)
June ... ..	53	54	55	54	46	47	40 (a)	9
July ... ..	57	57	57	56	47	48	39 (a)	8
August ... ..	61	52	55	57	46	49	36 (a)	8
September ... ..	61	51	55	54	45	49	36 (a)	—
October ... ..	61	53	55	51	46	49	31 (a)	—
November ... ..	61	53	54	50	47	50	27 (a)	—
December ... ..	60	55	56	51	48	50	21 (a)	—
Yearly average ... ..	57	55	55	54	47	49	37 (a)	—

(a) Revised figures.

**Patents and Designs.**—In his report for the calendar year, 1930, the Controller of Patents and Designs states that the economic depression, aggravated by the unsettled political conditions in India, had an adverse effect on the number of applications for patents filed in British India during the year under review, which declined from 1,392 in 1929 to 1,099 in 1930. Of these applications, 212 originated in India and the remaining 887 came from abroad. Four applications were received from women inventors. Applications, to the number of 334, claimed priority for the patents under reciprocal arrangements with the United Kingdom and other parts of the British Empire; eight were for patents of addition. Notwithstanding the fall of 21 per cent. in the total number of applications for patents filed in 1930, there was a fall of only 8 per cent. in the number of applications which originated in India. In view of the political and economic conditions prevailing, considerable interest attaches to the Controller's remarks on the trend of inventions :—

" A conspicuous feature worth mentioning in connection with the applications for patents filed in 1930, is the effort made by a large number of Indian inventors for perfecting the ' Charka,' or the hand spinning wheel. The attention which the ' Charka ' has been receiving from inventors has been somewhat spasmodic. During the period of eleven years, from 1910-1920, there was not a single application for a patent relating to the ' Charka.' In 1921, however, there was an intense propaganda in the country for popularising the ' Charka ' and there were suddenly 11 applications during the year, dealing with improved ' Charkas.' Since then, there was a rapid decline in the number of inventions in this field, and there were only 6 applications dealing with the ' Charka ' in 1922, nil in 1923 and 1924, and a total of only 5 during the period of five years from 1925-1929. In 1930, there was again a sudden increase, and the number of such applications filed during the year reached a record figure of 19. The great prize offered by the All India

Spinners' Association for an efficient 'Charka' was, in a large measure, responsible for the strong incentive given to a number of inventors engaged in this field. Practically all the improvements proposed in connection with the 'Charka' aimed at carrying out continuously and automatically the operations of initially drawing and twisting the cotton fibres, of spinning and twisting the thread and of winding the yarn.

"Improvements relating to high-draft and ring spinning machinery received attention from inventors from abroad.

"Power looms engaged the special attention of inventors from Japan and the United Kingdom, and handlooms received the attention of Indian inventors.

"Although increased application of electricity for industrial purposes and the improvement of electrical appliances have been the theme of a large number of inventors during recent years, the contribution made by Indian inventors in this field has been extremely poor. Out of about 150 applications filed during the year in respect of inventions relating to the various branches of electrical engineering, only 3 originated in India. Increased activity was noticed during the year in connection with means for improving the efficiency and the durability of vacuum discharged electrical apparatus. Inventions relating to electrical totalizator systems, for providing increased facility, economy, and expeditousness in working, also showed an increase during the year.

"No review of the trend of inventions patented in India during the year will be complete without a reference to the activity of inventors in the field of agriculture and irrigation. The number of inventions for agricultural implements was generally less in 1930 than in 1929. One of the Indian applications relating to ploughs was for the attaching means of the draught pole so as to reduce the jerks on the necks of the animals. As before, applications for improved Persian wheels and water lifts were contributed by the Punjab and the United Provinces. Improved machines were devised for husking "mashoor dhal," for cleaning rice, for conditioning grain, for crushing sugarcane and for cracking nuts.

"There was a steady progress in the inventions relating to the manufacture of tea, the objects aimed at being to regulate the pressure under which the leaf is rolled so as to rupture the cells, and to control artificially the withering of the plucked leaves, by using pre-conditioned air, and thereby make the withering process independent of the changes in the atmospheric conditions.

"Although there was vigorous propaganda in the country for the boycott of cigarettes, there was a record number of applications during the year relating to cigarette making machinery. All these applications, however, were from the United States. There was only one application relating to the manufacture of "biries" or country cigarettes.

"Apart from the industries already referred to, there was, in comparison with 1929, an appreciable increase in the number of applications relating to ventilating arrangements for buildings and railway vehicles, appliances for indoor and outdoor games, treasure boxes and padlocks, and the manufacture of paper pulp from vegetable matter.

"An appreciable decrease was noticed in inventions relating to chemical and metallurgical industries, artificial silk industry, petroleum and coal and other fuel industries, buildings and structures, advertising devices, glass manufacture, heating and lighting appliances, photography, phonographs and telephones. There was normal activity in other industries."

As regards designs, 5,454 applications were filed during the year, of which 163 originated in India and the rest came from abroad. The textile designs came mainly from the Calico Printers' Association, Ltd., who filed 5,003 applications during the year. There was a sudden increase in the number of embroidery designs, no

less than 54 being registered in 1930 of which 48 originated in Switzerland. Previously to this the number of embroidery designs registered in India had been negligible. Of the designs other than textile designs those relating to sports goods (footballs, cricket balls, tennis rackets, &c.) from the Punjab; steel boxes, trunks, suit cases, &c., from Delhi, and miscellaneous articles such as wooden trunks, aerated water bottles, spoons, teapots, lamp-stands, rice boilers, &c., predominated.

**Civil Aviation.**—I am indebted to Mr. F. Tymms, M.C., Director of Civil Aviation in India, for the following comprehensive note on the progress of civil aviation in India during 1930/31 :—

**1. Imperial Airways—London-Karachi Air Service.**—The England-India Air Mail Service continued to operate as a weekly service, the incoming mail arriving at Karachi at first on Saturday afternoon and later on Sunday afternoon and the outgoing mail leaving Karachi at first on Tuesday and later on Wednesday morning. The value of imports and exports by this service during the year 1930 amounted to Rs.8,95,258/- (including bullion and specie to the value of Rs.7,65,876/-) and Rs.4,150/- respectively. The number of passengers who made use of this service during the year was as follows :—

Arrivals in Karachi	...	...	...	69
Departures from Karachi	...	...	...	66

**2. Indian State Air Service, Karachi-Delhi-Calcutta.**—Fifty-two weekly flights were made each way between Karachi and Delhi involving an aircraft mileage of 71,760. 125 passengers were carried and 2,117 lbs. of mail matter were transported on the westbound and 3,648 on the eastbound route. The service was operated throughout the year by machines chartered from Imperial Airways Ltd.

Provision was made for the extension, during the year, of the Indian State Air Service from Delhi to Calcutta and Rangoon, the intention being to operate that section of the service with small aircraft carrying mails only. The Government of India subsequently decided to inaugurate a service between Karachi and Calcutta, as a State-owned and managed concern, with larger aeroplanes carrying both passengers and mails. The necessity for this change in policy deferred the institution of the service. Notice of termination of the charter agreement, under which Imperial Airways at present operate the Indian State Air Service between Karachi and Delhi, has been given to that Company, and the arrangement will cease, with effect from the 30th December, 1931. It is hoped that the service between Karachi and Calcutta will be opened simultaneously with the termination of the existing charter service between Karachi and Delhi.

**3. Foreign Services across India.**—“ During the year under review, permission was accorded for the operation across India of a regular fortnightly air service by the Dutch Company, Koninklijke Luchtvaart Maatschappij, from Amsterdam to Batavia; permission was also granted to the French Company, Air Union Lignes d’Orient, to establish a fortnightly service crossing India from Paris to Saigon. These services carry mails, passengers and goods to and across India, and are permitted also to embark passengers and goods in India for abroad.

“ The Dutch service, following a series of regular experimental flights, started on the 29th September, 1930, and up to the end of December completed seven outward and six return flights. The operation of the French service commenced on the 17th January, 1931. The Dutch service is operated by Fokker F.XII aircraft and the French service by Fokker F.VII aircraft.



**4. Private Flying Clubs.**—"The flying clubs in India are under the control of a parent club, known as the Aero Club of India and Burma, which received a subsidy of Rs.30,000 for the financial year 1930-31. The four flying clubs at Karachi, Bombay, Delhi and Calcutta were each granted a subsidy of Rs.20,000 for the same year, and in addition a bonus calculated at the rate of Rs.150/- for each pilot trained during the year, subject to a maximum of Rs.5,000/-. This constituted the fourth year of subsidy to these clubs. In addition each flying club has received a grant of Rs.9,000 towards the construction of a hanger.

Two new flying clubs were formed during the year under review, one at Lahore known as the Punjab Flying Club, and the other at Madras. Each of these two clubs was provided with two D. H. Gipsy Moth with spare engines, and received Rs.20,000/- as subsidy, a bonus not exceeding Rs.2,250/- for pilots trained during the year, calculated at the rate of Rs.150/- for each pilot, and Rs.15,000/- towards the provision of a hangar. Flying training commenced on the 31st May in the club at Lahore and on the 21st July at Madras.

The total number of members trained *ab initio* in all the six clubs during the calendar year 1930 was 93. Of the members so trained 79 were granted their pilot's 'A' licences. Of these latter, 37 were Indians including two ladies, viz., Miss Rodabeh Tata and Mrs. Urmila K. Parekh, both of whom were trained by the Bombay Flying Club. One Indian—Mr. Bhagat Behari Lal—succeeded in obtaining his 'B' licence (*i.e.*, a licence allowing him to fly for hire or reward). He is the first Indian trained in India to have done so. He was trained by the Delhi Flying Club.

Increasing interest in civil aviation is being taken by the Princes and Ruling Chiefs. H.H. the Maharaja of Jodhpur has completed his tests for a pilot's 'A' licence, and has purchased a D. H. Gipsy Moth for his own use. The Raja of Kalsia, who is also the owner of a D. H. Moth which he pilots himself, is the holder of an 'A' licence. Both are members of the Delhi Flying Club.

**5. International Flights by Indians.**—"In the issue of 'India, 1929-30' mention was made of the offer by H.H. the Aga Khan of a prize of £500 for the first solo flight between England and India or vice-versa by a person of Indian nationality. This led to a race between three Indians. The first to start was Mr. Man Mohan Singh, who took off from Croydon on the 8th April, but could not reach Karachi before the 10th May, 1930, having had a forced landing in a swamp at St. Rambert near Marseilles, which damaged his machine. The second competitor, Mr. Aspy Engineer, left England on the 25th April and arrived at Karachi on the 11th May, a day behind Mr. Man Mohan Singh. The third competitor, Mr. J. R. D. Tata, entered the race on the 3rd May, starting from Karachi. He reached Croydon on the 12th May, 1930.

As Mr. Man Mohan Singh had exceeded the time limit of one month laid down as one of the conditions for the prize, it was awarded to Mr. Engineer. Though Mr. Tata did not win the prize, his was a highly creditable performance in that he completed the flight in the least time, nine days.

His Highness the Aga Khan has offered another prize of £500 for the first solo flight from India to Cape Town by an Indian. Two unsuccessful attempts have so far been made for this prize. One was by Mr. Aspy Engineer, the winner of the previous prize, who left Karachi in a D. H. Puss Moth on the 30th December, 1930, but wrecked his machine in a marsh near Abadan. He was compelled to abandon the attempt and return to India. The other attempt was by Mr. Morad, who left Calcutta for Cape Town at the end of December, 1930, in a D. H. Gipsy Moth, but crashed near Shaibah. His machine having been wrecked, he also had to abandon the flight and return to India.

**6. International Flights by non-Indians.**—"The number of flights by foreign and non-Indian aviators across India during the year was 22 (excluding the flights carried out on the Dutch and French Air Mail Services). These were distributed as follows:—

English	...	...	...	...	...	11
Italian	...	...	...	...	...	1
French	...	...	...	...	...	4
American	...	...	...	...	...	1
Australian	...	...	...	...	...	3
Dutch	...	...	...	...	...	1
Portuguese	...	...	...	...	...	1
Total	...	...	...	...	...	22

Among the aviators there were two English ladies, Miss Amy Johnson and the Hon. Mrs. Victor Bruce, and one French lady Mlle. Marys Hilsz. Miss Amy Johnson flew in a D. H. Gipsy Moth from England to Australia in an attempt to beat Squadron Leader Hinkler's record of 15½ days. The Hon. Mrs. Victor Bruce flew in a Blackburn Bluebird from England to Tokio and later across America. The flight of Mlle. Marys Hilsz was from France to French Indo-China, which she accomplished successfully.

"Two other flights are worthy of special remark, one being the record flight from England to Australia in 10 days by Wing Commander (now Air Commodore) Kingsford Smith, in an Avro Avian; the other, the flight by two French airmen—Capt. Goulette and Lalouette—who flew from Paris to Saigon in the record time of 5½ days.

"It is regrettable to have to report one fatal accident in connection with these flights. Messrs. Hook and Mathews, while crossing Burma en route for Australia, during the monsoon, were forced down by heavy rain and low clouds in the Yoma Mountains. The machine was slightly damaged, though the occupants were unhurt. Unfortunately the task of reaching civilisation proved too arduous, and though Mr. Mathews managed to get in touch with villagers, Mr. Hook died of exhaustion.

"In view of the great cost of organising relief expeditions in cases of this kind, steps have been taken to discourage individual aviators from attempting the flight over Burma during the monsoon.

"Acknowledgment is due to the many private individuals and organisations who assisted freely in the organisation of relief and rescue expeditions.

**7. Air Survey and Photography.**—"During the calendar year 1930, the Indian Air Survey and Transport Ltd., which has its headquarters at Dum Dum (Calcutta), completed vertical photography of 4,110 square miles. Areas totalling 3,440 square miles were photographed for the purpose of compiling 16in. to the mile settlement maps, the scale of the negatives being 6in. to the mile. The remainder was undertaken for a variety of purposes, including town planning, irrigation, forest and railway surveys. The Company's programme for settlement surveys is being continued during 1931, and by the beginning of February their field parties had already photographed 1,600 square miles in the United Provinces, Bengal and Bihar and Orissa.

"The Company's flying equipment has consisted of three D. H. 9 aircraft and one Avro Avian. Flying has been carried out from temporary bases established in the districts being surveyed; the hours flown during 1930 totalled 419 hours 25 minutes.

"The Company's drawing office has been fully employed on all classes of mapping from photographs taken during the previous season.

"Research work has been undertaken by the Company with a view to reducing the amount and cost of the ground survey necessary to provide data for the complete rectification of vertical photographs used for large scale mapping. As a result, new methods have been introduced and a saving of a quarter to one-third in the cost of the ground control effected; the high standard of accuracy called for in this class of work is being maintained.

" In addition, a large number of oblique photographs have been taken by the Company for commercial purposes; reconnaissance flights for Railway and Forest Departments have also been made by them.

**8. Ground Organisation.**—" A sum of Rs.14,59,700 was included in the Civil Aviation Budget for the year 1930-31 for expenditure on the ground organisation of the air routes in India.

This amount was spent on the following works :—

- (i) Ground organisation of the Karachi-Delhi Section.
- (ii) Ground organisation of the Delhi-Calcutta Section.
- (iii) Ground organisation of the Calcutta-Rangoon Section.
- (iv) Partial preparation of the site for Bombay (Juhu) aerodrome.

The following major works were carried out during the year :—

(a) *Karachi-Delhi Section.*

Karachi—Improvements to the water supply.

Hyderabad—Extension of the Royal Air Force landing ground to make it fit for commercial machines.

Delhi—Improvements to the roads and fencing.

(b) *Delhi-Calcutta Section.*

Calcutta—Acquisition of extra land in order to keep clear the air approaches.

Provision of electric light. Improvements to the water supply.

(c) *Calcutta-Rangoon Section.*

Chittagong—Partial preparation of the ground.

Sandoway—Preparation of the ground.

Bassein—Preparation of the ground.

Rangoon (Mingaladon)—Completion of the preparation of the ground. Erection of a hangar. Provision of electric light and water supply.

The distances between these landing grounds are as follows :—

	Miles.
Calcutta (Dum Dum)—Chittagong	... 228
Chittagong-Akyab	... 178
Akyab-Sandoway	... 158
Sandoway-Bassein	... 120
Bassein-Rangoon (Mingaladon)	... 101
	785

(d) *Bombay (Juhu).*—" In order to ensure that this ground should remain fit for use during the monsoon it was decided to raise the surface by an average of 4.5 feet. Part of the aerodrome has been completed, but an area has been left so that machines may continue to use a part of the ground until the newly raised part has settled down properly.

" The total amount which has been spent up to the end of 1930-31 on the establishment of air routes and aerodromes in India is approximately Rs.41,34,973.

" This was divided as in the tabular statement below :—

	Rs.
Acquisition of land	8,30,377
Preparation of sites	13,66,070
Hangars and buildings	7,20,801
Roads	84,346
Wireless Stations	10,05,000
Meteorological stations	57,000
Aerodrome equipment	71,379
	41,34,973

" The following statement shows broadly the ground organisation for civil aviation which has been provided up to date :—

*Karachi.*—Aerodrome with 2 hangars. W/T and D/F stations and meteorological station giving forecasts for the Bushire-Karachi-Jodhpur section.

*Hyderabad.*—Meteorological observer who can give local upper air and landing conditions on the R.A.F. landing ground.

*Uterlai.*—Landing ground.

*Jodhpur.*—Aerodrome with W/T and D/F station and meteorological observer giving local upper air and landing conditions.

*Badhal.*—Landing ground.

*Delhi.*—Aerodrome with hangar, W/T and D/F station and meteorological station giving forecasts for the Jodhpur-Delhi-Gaya Section.

*Allahabad (Bamrauli).*—Aerodrome with hangar, W/T and D/F station, and meteorological observer, who can give local upper air and landing conditions.

*Gaya.*—Landing ground with W/T and D/F stations and meteorological observer who can give local upper air and landing conditions.

*Calcutta (Dum Dum).*—Aerodrome with hangar, W/T and D/F station and meteorological station giving forecasts for the Gaya-Calcutta-Akyab Section.

*Akyab.*—Aerodrome with W/T and D/F station.

*Sandoway.*—Landing ground.

*Bassein.*—Landing ground with W/T and D/F Station.

*Rangoon (Mingaladon).*—Aerodrome with hangar, W/T station and meteorological station giving forecasts for the Akyab-Rangoon-Victoria Point Section.

*Bombay (Juhu).*—Aerodrome.

" The W/T and D/F stations do not at present keep continuous watch. Arrangements can be made for them to operate on any particular day if required. Forecasts of weather conditions in Madras and Bombay Presidencies, Central Provinces, Hyderabad, and Mysore can be obtained from the Poona Meteorological Station.

" In addition, Royal Air Force aerodromes and landing grounds in India are available for civil aviation.

**9. Licences and Certificates.**—" The table below shows the number of licences and certificates issued up to the end of the year 1930 and those current on the 31st December, 1930 :—

	New licences or certificates issued up to the end of 1930.			No. of licences and certificates current on 31st Dec., 1930.
	Issued up to the end of 1929	Issued during 1930	Total.	
Pilots' " A " licences (1) ...	65	93	158	123
Pilots' " B " licences (1) ...	36	29	65	27
Ground Engineers' licences ...	24	7	31	11
Certificates of registration. (or re-registration) ...	54	36	90	42
Certificates of airworthiness (2) ...	32	13	45	22
Certificates of approval of aerodromes (3) ...	1	—	1	1

*Note.*—(1) While pilot's "A" licences, with the exception of 14, represent original licences obtained in India by persons trained in India, the majority of "B" licences were issued either to the Royal Air Force officers or to persons who held British Air Ministry "B" licences. Only two Indians trained in India offered themselves for examination in the tests prescribed for a "B" licence. One succeeded in obtaining the licence.

(2) Of the certificates of airworthiness issued, a certain number have been allowed to lapse because under the Indian Aircraft Rules, as they stand at present, no certificate of airworthiness is required by a private aircraft.

(3) With the exception of the one aerodrome shown, the aerodromes and landing grounds available for civil aviation in India are the property of the State and do not appear above.

**10. Air Navigation in Indian States.**—“ At their session held on the 17th March, 1931, the Chamber of Princes adopted a Summary of Principles regarding the regulation of aviation in the Indian States. The following are the main features of the Summary :—

“ It is admitted that the sovereignty of the Rulers of the States—in whatever measure they severally possess it—over their territories, embraces the air space above those territories. It is agreed that the Government of India, in fulfilment of its obligations as a signatory to the International Convention for the Regulation of Air Navigation, will regulate air navigation over the Indian States. Thus there will be one central authority in India for the issue of licences and certificates in relation to aircraft, personnel and aerodromes. The Indian States agree to enact and enforce legislation on the lines of British Indian legislation with regard to navigation of the air and the rules and regulations thereunder for the time being in force.

“ The notification of prohibited areas in Indian State territory will be made after consultation with the Government of India. The establishment of aerodromes and landing grounds in Indian State territory may be carried out by the State concerned or, by arrangement, by the Government of India. In order to safeguard their fiscal rights each State may designate one or more Customs landing grounds for aircraft arriving at or departing from its territory.

“ The general effect of these provisions, it will be seen, is to reserve to the States specifically their rights with regard to notification of prohibited areas and customs, while providing for the unified control of aviation in India by means of concerted action between the Government of India and the States.”

Since the above report was written the future of civil aviation is in suspense owing to the urgent need for economy in all Government of India spending departments. The subject of civil aviation is engaging the attention of the Indian Retrenchment Committee at the present time, but a decision has not yet been reached. Meanwhile, expenditure on ground organisation has been largely suspended, including the lighting arrangements for night flying, tenders for which have already been received.

**Wireless Telegraphy.**—I am indebted to the Acting-General Manager of the Indian Radio Telegraph Co., Ltd., for the following note with regard to the development of wireless communications in India :—

“ **Beam Telegraph Service between India and England.**—The main activities of the Indian Radio Telegraph Company include the Wireless Beam Telegraph Service between India and England, and the following comparative figures of the traffic exchanged between India and England by means of this service offer interesting information :—

Total sent and received words.		
1928	1929	1930
114,87,741	129,32,764	124,95,434

“ Although the total of the sent and received words for the year ended 1930 is only 3 per cent. less than the total of the sent and received words for the previous year, in view of the general depression in trade experienced during the year under report, these figures show that an increasing proportion of the total available traffic is following our route. However, it might be pointed out here that although there has been no considerable decrease in the cheaper classes of telegrams, owing to the adverse times our full-rate traffic has fallen appreciably, with the result that our total telegraph revenue for the year as compared with the last year exhibits a fall of 10 per cent.

“ The three main questions of vital importance to this Company, to which a reference was made in the last year’s report and which have since then been engaging the most earnest and thoughtful attention of the Company are :—

(1) A scheme for the formation of a Communications Company in India with a view to merge the Cable and Wireless interests of the Government of India, the Imperial and International Communications Co., Ltd., London, and the Indian Radio Telegraph Co.

(2) The establishment of an Indo-Japanese Wireless Service ; and

(3) The establishment of a system of Wireless Telephony between this country and Great Britain in co-operation with the General Post Office, London.

“ The aim of the Company is to afford the public a cheap, accurate and speedy means of communication and in furtherance of this policy negotiations were carried on with the Indian Government for obtaining facilities for the more rapid distribution of traffic over inland lines. These negotiations have now resulted in the Government Telegraph Department deciding to adopt the Carrier Current System, which is being installed between Calcutta and Bombay.

“ The other activities of the Company include :—

**Point to Point Wireless Services.**—During the year Marconi installations have been supplied to the Indian Government for Karachi, Calcutta, Chittagong, Akyab, Bassein and Sandoway.

“ A series of Wireless Telephonic equipments have been ordered by the Bikaner State for linking up various sub-stations of their Hydro-Electric Scheme with Bikaner headquarters. Negotiations are proceeding with both the Calcutta and Bombay Police Authorities.

“ **Wireless Beacon and Direction Finding Stations.**—The Bombay Port Trust authorities have ordered a Wireless Beacon to be installed at Kennery Island. This equipment will be installed immediately after the present monsoon. It is anticipated that this first Wireless Beacon on the Indian coast will be the forerunner for several more such equipments. The value to shipping and to the safety of life at sea has been so ably demonstrated in many parts of the world by the use of such installations that considerable developments in this connection can be confidently anticipated.

“ The Government of India have ordered two of the very latest type Direction Finding Equipments called the ‘Adcock’ type. These two Direction Finding stations will be installed at Calcutta and Karachi in connection with the development of aviation services in this country.

“ **Public Address Equipments.**—The Indian Radio Telegraph Co. have carried out a large number of successful demonstrations with their public address equipments and the demand for the use of such equipments is steadily increasing for public address functions of all kinds and also for band amplification. Several complete sets of Public Address equipments have been sold to the Indian States where they are giving every satisfaction.

**“ Future Developments.**—Apart from inter-continental telegraphic services there appears to be a considerable field for the development of wireless in India. It is admittedly suited for police outposts, for coastal communication with lighthouses and lightships, and as an aid to navigation to both ships and aeroplanes with the anticipated development of commercial aviation in India for aerodromes and meteorological purposes, it is anticipated that there will be considerable developments on these lines in India in the near future.”

**Broadcasting.**—The assets of the Indian Broadcasting Co., Ltd., were taken over by the Government of India from March 31st, 1930, against a cash payment of Rs.3 lakhs and the service is being continued as the Indian State Broadcasting Service. As a temporary arrangement the Postmaster-General, Bombay, and the Electrical Engineer-in-Chief assumed control of the organisation in Bombay and Calcutta respectively, the station Director of each station remaining in charge. The financial results of the working of the service for the first six months from April 1st to September 30th, 1930, disclosed a net loss of Rs.75,936. The future of the service is now engaging the attention of a special sub-committee of the Indian Retrenchment Committee and, in view of the present pressing need for public economy, fears are entertained that the service may be suspended for some time although no definite decision has yet been reached.

**The Indian Census, 1931.**—The census of India was taken on the night of February 26th, 1931, in India, and February 24th, 1931, in Burma. The provisional figures, which were released by the Government of India in March, show that the total population of the country is 351,450,689\* viz., British Territory 270,612,162 and Indian States 80,838,527, giving an increase of 23,608,809 in British Territory and 8,899,340 in Indian States. Although these figures are provisional, the Government of India state that the experience of previous censuses shows that the difference between the population according to the provisional totals and that as finally ascertained does not amount to more than 1 in 2,500 persons and the figures are therefore sufficiently accurate for practical purposes and can be adopted by Local Governments for administrative purposes and for calculation of proportions and percentages based on population.

The following table gives the percentage variations at each of the last three occasions when a census was taken :—

					1901-11	1911-21	1921-31
					%	%	%
All-India	...	...	...	...	+ 7.1	+1.2	+10.2
Provinces	...	...	...	...	+ 5.5	+1.3	+ 9.55
States	...	...	...	...	+12.9	+1.0	+12.3

\*The first revised census totals issued in September, 1931, give a figure of 352,986,876 for all-India, which shows an increase of 10.6 per cent. since 1921.

An increase of population of 32½ millions representing an addition of over 10 per cent. in one decade is an event of almost transcending importance in any consideration of India's economic position. The relatively small increase in the decade 1911 to 1921 is attributed to the ravages of the influenza epidemic of 1919 which took a heavy toll of life in India. During the past decade India has been free from any visitation of nature such as famine, epidemic, earthquake or widespread flood with the result that, under the aegis of the Pax Britannica, the improvements in social hygiene, medical services, sanitation and public health organisation have borne full fruit. The following table shows the present population and percentage increase in each of the principal Provinces and States:—

	Population. 1931	Variation 1921-31. Per cent.
Assam ... ..	8,784,943	+ 15·5
Bengal ... ..	49,997,376	+ 7·08
Bihar and Orissa ... ..	37,590,356	+ 10·5
Bombay Presidency ... ..	21,102,126	+ 9·06
Burma ... ..	14,652,272	+ 10·8
Central Provinces and Berar ... ..	15,472,628	+ 11·2
Madras ... ..	46,731,850	+ 10·4
N. W. Frontier Province ... ..	2,423,380	+ 7·64
Punjab ... ..	23,580,520	+ 13·9
United Provinces ... ..	48,423,264	+ 6·7
Mysore State ... ..	6,554,573	+ 9·62
Hyderabad State ... ..	14,395,493	+ 15·04
Travancore State ... ..	5,090,462	+ 27·0
Cochin State ... ..	1,204,235	+ 22·9
Kashmir State ... ..	3,645,339	+ 9·8
Rajputana Agency ... ..	11,223,708	+ 14·01
Central India Agency ... ..	6,615,204	+ 10·3

The most striking features are, firstly, the increase of 13·9 per cent. in the case of the Punjab, largely due to general prosperity and the bringing of increased areas into cultivation as a result of irrigation; secondly, the increase of 15·5 per cent. in Assam which is due to a larger population, mostly immigrants from other provinces, settled on the tea estates; thirdly, the very high rate of increase in the advanced Indian States of Travancore and Cochin, where the standards of education, social life and hygiene, and public health are very high. Calcutta is the most populous Indian City with a total (with Howrah) of 1,383,898. Bombay City comes next with a total of 1,157,851. Details with regard to religion, caste, occupation, &c., are not yet available.

From an economic standpoint, a steady increase in India's population of three millions per annum, three-quarters of whom



are directly supported by the land, is likely to raise problems of the first magnitude. Unless rapid and successful efforts are made to increase the agricultural yield of the country, the pressure for subsistence will become increasingly acute. While it is true that the yield per acre of India's staple crops is a very low one, the intense conservatism of the ryot constitutes a serious obstacle to improvement.

**Royal Commission on Labour in India.**—The report of the Royal Commission on Labour in India, generally known as the Whitley Commission, to which reference was made in my last report, was published early in July, 1931. The report contains most valuable information with regard to labour conditions in every branch of economic activity in India. The recommendations, which extend to 34 pages of the report, are far too lengthy to be reproduced here. Mention may be made of certain of them, which are of particular interest to the United Kingdom industrialist, viz. :—(1) the weekly limit of hours for perennial factories should be reduced to 54 and the daily limit to 10; (2) Factories working on continuous processes or supplying daily necessities may be allowed a 56 hour week subject to an average week of 54 hours for the operative and in conformity with the provisions in respect of holidays; (3) The maximum daily hours for children should be limited to 5; (4) The minimum rate for overtime should be  $1\frac{1}{2}$  times the normal rate where work exceeds 54 hours a week and  $1\frac{1}{2}$  times the normal rate for work in excess of 60 hours a week; (5) In the framework of the future constitution, provision should be made for an organisation (the Industrial Council) which would enable representatives of employers of labour and of Governments to meet regularly in conference to discuss labour measures and labour policy; (6) A Labour Commissioner responsible for the administration of all labour subjects should be appointed in every province except Assam, &c., &c. In their introductory remarks the Commission state :—

“ We are writing at a time when circumstances, both economic and political, are exceptional. In the economic sphere India, in common with many other countries, is facing a period of stress. Indian industry is involved in the general depression, and many of the industries with which we are concerned are facing serious difficulties which, we hope, will soon be surmounted. With orderly progress in India, her industry should have a great future. But the present position is one of anxiety for industrialists, for many workers and for all concerned in Government. We have considered the extent to which we should allow our recommendations to be influenced by the events of the last year, and have concluded that it would be wrong for us to give these any large influence. India has the right to expect from us, not a series of recommendations framed in the light of the existing crisis, but a considered programme for the development of labour policy. As a matter of fact nearly all our evidence relates to conditions in 1929 or early 1930, before the present crisis developed. Our survey, therefore, is a survey of conditions as they then stood and, for the most part, our recommendations are framed with reference to circumstances as they then existed. If the execution of some of the changes we advocate is made more difficult by reason of the present position, others are

thereby rendered more easy to introduce. Some recommendations involve no expense, others call for financial outlay; but, as a whole, they are calculated to secure increased prosperity. It is sometimes assumed that good conditions for labour involve a sacrifice for industry. But, in the experience of India, there is abundant evidence to show that a generous policy in respect of labour is a wise policy in respect of industry. It is not possible for India to secure a permanent advance for her industries at the expense of her labour, and we are confident that this is far from her desire. In the views submitted to us, the suggestion that cheap labour is a national asset was seldom made. On the contrary, there is widespread recognition of the fact that industrial activity finds its strength and much of its justification in the prosperity of all who contribute to it. We have attempted to exercise as much foresight as we can, and we believe that the principles underlying our recommendations are likely to abide; but we have not attempted to anticipate the problems and difficulties of a future generation."

The recommendations of the Commission are now receiving the careful attention of the Industries and Labour Department of the Government of India and a circular letter will shortly be addressed to Local Governments explaining the Central Government's attitude to the Report and the measures it proposes should be taken for the early treatment of the questions raised.

**The Indian Central Banking Enquiry Committee.**—The report of the Indian Central Banking Enquiry Committee, presided over by Sir Bhupendranath Mitra, was published on September 16th, 1931, and provides most illuminating, and hitherto unavailable, facts with regard to existing credit agencies, rural finance, the Indian banking system and money market, and the financing of foreign trade. United Kingdom industrial and export interests should pay special attention to the chapter devoted to the methods of financing foreign trade, to the comments of the international experts, and also to the criticisms of the exchange banks contained in the minutes of dissent and the minority report. These last clearly show the trend and intensity of nationalist feeling which persists among a large section of the politically-minded Indian commercial community. The recommendations of the Committee are much too lengthy to be quoted *in extenso*. The following summary of the recommendations affecting the Exchange Banks will, however, be found to be of interest to my readers:—

- (1) The suggestion that exchange banks should consider the possibility of changing their present custom to the extent that they should be prepared to accept import bills instead of purchasing them, in the same way as house paper of a London export house is now accepted by them, is commended for the careful consideration of the exchange banks.
- (2) If Indian importers find it convenient to have the exporters draw on them in rupee bills, the exchange banks should co-operate and encourage their efforts in this direction.
- (3) The Exchange Banks' Association should consider the advisability of consulting commercial bodies in all cases of changes in the rules of the Association.
- (4) Exchange banks should take steps to remove the existing grievances regarding payment of drafts held by the banks for collection.

(5) It is suggested that exchange banks, in consultation with representatives of the Indian Insurance Companies, should arrive at some understanding similar to that between the Imperial Bank of India and the insurance companies.

(6) All non-Indian banks wishing to do banking business in India should be required to take out a licence from the Reserve Bank. Licences should be freely granted to banks already established. Every licence should be in force for a stated period and should be automatically renewed if the licensing authority is satisfied that the provisions of Indian law applicable to the banks and other conditions specified in the licence are complied with.

(7) The conditions of the licence should be the following :—

(i) Furnishing to the Reserve Bank annual statements showing their assets and liabilities relating to the Indian business as prescribed by the Reserve Bank from time to time.

(ii) Submission for a few years to come, at any rate, to some prescribed authority in India, preferably the Reserve Bank, periodical reports of Indian and non-Indian business handled by them.

(iii) Other conditions imposed on basis of reciprocity.

(8) The appointment of Local Advisory Boards at each branch of the exchange banks is supported.

(9) The exchange banks should consider the introduction of a scheme of probationary assistants in their banks on the model of the Imperial Bank of India scheme.

(10) Such of the Indian Joint Stock banks as are well-established should open foreign connections useful to their clients.

(11) On the establishment of the Reserve Bank and the simultaneous withdrawal of the restrictions now imposed on the transactions of foreign exchange business of the Imperial Bank of India, the latter should be induced to take an active share in the financing of India's foreign trade. For this purpose a definite arrangement between the Reserve Bank and the Imperial Bank for a period of five years (or such other period as the Reserve Bank may consider desirable) for utilizing the Imperial Bank as agents of the Reserve Bank on terms to be settled between the two banks is recommended.

(12) If the Reserve Bank finds it impossible to arrive at a satisfactory settlement with the Imperial Bank of India or finds that within the stipulated period the Imperial Bank is unable to participate actively in the financing of India's foreign trade the establishment of an Indian Exchange Bank is recommended.

(13) The lines on which the new Indian Exchange Bank should be established are also suggested.

**The Drugs Enquiry Committee.**—In pursuance of the resolution, which was adopted by the Council of State in March, 1927, recommending the Governor General-in-Council to urge all Provincial Governments to take such steps as may be possible to control the indiscriminate use of medicinal drugs and to legislate for the standardisation of the preparation and the sale of such drugs, the Government of India, after consulting Local Governments and with their approval, appointed in August, 1930, a small committee consisting of Lieut.-Col. R. N. Chopra, I.M.S., Professor of Pharmacology, School of Tropical Medicine and Hygiene, Calcutta (Chairman); the Rev. Father J. F. Caius, S.J., Pharmacologist, Haffkine Institute, Bombay; Mr. H. Cooper, of Messrs. Smith, Stanistreet & Co., and Maulvi Abdul Matin Chaudhury,

M.L.A., (members) to explore and define the scope of the problem and to make recommendations as to the measures which should be taken with the following terms of reference :—

(1) to inquire into the extent to which drugs and chemicals of impure quality or defective strength, particularly those recognised by the British Pharmacopoeia, are imported, manufactured or sold in British India, and the necessity, in the public interest, of controlling such importation, manufacture and sale, and to make recommendations;

(2) to report how far the recommendations made in the preceding paragraph may be extended to approved medicinal preparations, other than those referred to above, and to medicines made from indigenous drugs and chemicals;

(3) to inquire into the necessity of legislation to restrict the profession of pharmacy to duly qualified persons, and to make recommendations.

The Committee has presented its report to Government but, so far, no official notification has been made of the action which the Government of India propose to take. I have called attention for several years in these reports to the need for legislation in India on the lines of the American Food and Drugs Act and the British Therapeutic Act in order to standardise the preparation and sale of drugs. Such legislation is urgently needed, not only to protect the consumer of drugs in India from the effects of consuming useless and in many cases deleterious products, but also to protect the legitimate manufacturers of preparations which are up to the standard of the British Pharmacopoeia from the unfair competition of their foreign and Indian competitors, who place on the market, at absurdly low prices, drugs the constitution of which is unknown and which bear no standard. It is hoped that we are now within sight of legislation which will remove this long-standing grievance of the British drug trade.

**Road Development.**—In my last report I gave a summary of the recommendations contained in the report of the Indian Road Development Committee, and an account of the action which the Government of India had taken on those recommendations. I also referred to the Conference which was held in April, 1930, when provisional programmes for the expenditure of the provincial shares in the Central Road Development Account were discussed. These were subsequently approved by the Government of India upon the advice of the Standing Committee of the Central Legislature on Roads.

The following schemes were approved by the Government of India :—

Bridging on important roads in Madras ... ..	(Rs.35 lakhs)
Improvements, connections and bridging on important trunk roads in Bombay ... ..	(Rs.60 lakhs)
Miscellaneous improvements in Bengal ... ..	(Rs.57 lakhs)
Reconstruction and improvement of important roads in the United Provinces ... ..	(Rs.43 lakhs)
in Bihar and Orissa ... ..	(Rs.40 lakhs)
General road development in the Punjab ... ..	(Rs.60 lakhs)
Bridging and improvement in the Central Provinces ... ..	(Rs.17 lakhs)
Bridging in Assam ... ..	(Rs.2 lakhs)

The first distribution of the revenue, obtained from the additional duties on petrol during the financial year 1929-30, took place in 1930-31 in the following proportions :—

	Rs. Lakhs.
Madras ... ..	13·0
Bombay ... ..	17·5
Bengal ... ..	13·5
United Provinces ... ..	4·7
Punjab ... ..	8·2
Burma ... ..	12·0
Bihar and Orissa ... ..	2·9
Central Provinces ... ..	3·1
Assam ... ..	1·8
Minor Administrations and States (Block grant) ... ..	10·2

In view of the present financial stringency the Government of India have, by a resolution in the Council of State and in the Legislative Assembly in September, 1931, obtained sanction to use as a temporary measure the provincial shares in the Road Development Account for expenditure on the ordinary maintenance of roads, on the condition that when the situation improves the amount borrowed for maintenance will be restored to the programmes of development which are at present held in abeyance.

Prior to the second Road Conference, held in September, 1931, Committees were appointed to deal with various questions and their reports were considered by the Conference.

*Committee Appointed to Examine the Question of Standard Motor Vehicle Regulations for India.*—In India the framing of regulations to control motor traffic is a provincial subject, local Governments having under Section 11 of the India Motor Vehicles Act, 1914, full powers to frame regulations. The result has been that while in framing regulations local Governments have had access to the regulations framed by neighbouring Provinces, there has been a considerable divergence in detail, which was alleged to be hampering to the user of motor transport without being required for any particular reasons. The Committee consisted of representatives of provincial Governments and States and had as its object, firstly, a discussion of the subjects which might be covered by uniform rules throughout India, and secondly the drawing up of standard model rules, covering those subjects, which might be

recommended to be made by local Governments. The Committee presented a unanimous report and also went a long way towards completing a draft of the model rules which they recommended; this draft is being completed by the Secretary and will be taken into consideration shortly.

*Committee Appointed to Consider a Standard Basis of Motor Vehicle Taxation.*—This Committee were concerned primarily with the taxation of the motor vehicle as opposed to the taxation of transport through *inter alia* a petrol tax. A vehicle tax may be imposed by Provincial Governments, whereas the petrol tax is a Central Government tax. The Committee considered whether existing taxes on vehicles could not be abolished and unified into a provincial motor vehicle tax to be imposed upon a standard basis throughout India. Various schemes were put forward and after discussion the Committee recommended that :—

Motor cycles should be taxed at a flat rate for all classes of motor cycles, including three wheelers, up to 8 cwts. laden weight.

All private cars should, if the tax level were low, be taxed at a flat rate regardless of size or weight, but if the tax level were high they should be divided into three categories by unladen weights. Public service vehicles whether taxis or buses should be taxed on the basis of registered seating capacity; and lorries should be taxed on the basis of laden weight.

*Committee of Chief Engineers.*—The Committee made certain recommendations regarding expenditure on research work in connection with road surfaces, and on the subject of heavy motor vehicles with particular reference to the loads to be carried by them, their speed and the tyres to be used. The Committee made no recommendation on the subject of the speed of private vehicles, but recommended that steps should be taken to secure, after due notice, the provision of approved speed governors on all public service and commercial vehicles.

*The Road Conference, 1931.*—The Road Conference considered the reports of the Committees. In connection with the report of the Committee on motor vehicle taxation, it did not appear to be possible for anything to be done, but in respect of the other two reports the Road Conference recommended them for consideration by Government. These reports will therefore be taken into consideration and certain action on the lines recommended may be expected to be taken before long. In particular the Road Conference endorsed the recommendation of the Chief Engineers that a sum of Rs.3 lakhs should be set aside for experimenting in improved road surfaces, but that, in view of the financial outlook, attention should be directed rather to low cost surfaces than to further experiments in expensive materials; but that in any event a

proper review should be made of all work done up to date in India, with a view to deriving the maximum benefit from the experience gained. The Road Conference also considered demands for special grants from the reserve with the Government of India, and approved certain proposals from which the Government of India are to make a selection of the schemes which may be financed according to the amount that accrues in the reserve. At present it appears probable that the reserve available for existing special work will amount to about Rs.40 lakhs only during the five year period and grants will usually be to the extent of about one-half of the total cost, the balance being found locally either from the provincial or States share in the road development account or from other sources. The schemes to be approved are generally of the nature of providing important bridges over waterways which at present constitute a serious interruption to traffic on all-India trunk roads, or in filling gaps which at present exist in roads of that nature, and also in providing bridges or filling gaps in subsidiary trunk roads. An early intimation of the grants to be given from the reserve is expected.

## CHAPTER II.

AN EXAMINATION OF THE POSITION OF THE UNITED KINGDOM EXPORTER IN CERTAIN OF THE TRADES WHICH HAVE BEEN MOST ADVERSELY AFFECTED BY THE RECENT CRISIS WITH SPECIAL REFERENCE TO THE ADEQUACY OR OTHERWISE OF EXISTING SYSTEMS OF REPRESENTATION AND DISTRIBUTION.

**Cotton Piecegoods.**—From whatever angle it is viewed, the catastrophic decline in the imports from the United Kingdom of piecegoods since the war, and particularly during the crisis of the past eighteen months, strikes at the very heart of the British trade position in India. Of our total exports to India, cotton piecegoods in 1913/14 accounted for 48 per cent., or nearly one-half. In 1928/29 the proportion had fallen to one-third and in 1930/31 to one-fifth. The figure for the current year will be lower still. In 1913/14 the total imports into India of cotton piecegoods were 3,197 million yards, of which the United Kingdom supplied 97 per cent. and Japan 0·3 per cent. In 1930/31 the total imports had fallen to 890 million yards, of which the United Kingdom shipped 58·8 per cent. and Japan 36·1 per cent. Whereas in 1913/14 imports provided three-quarters and the Indian mills one-quarter of the machine-made cloth available for consumption in the country, in 1930/31 the Indian mills produced three-quarters and imports provided only one-quarter of the available balance for consumption. Of this one-quarter, the United Kingdom, as we have seen, supplied only 58·8 per cent. The phenomenal fall in the imports of United Kingdom piecegoods in 1930/31 by 724 million yards in

volume and over Rs.21 crores in value accounted for fully half of the reduction of Rs.42 crores in the British share of India's total imports. It may, therefore, be said to be mainly responsible for the unprecedented fall of 5.6 in the percentage share of the United Kingdom in India's imports of all kinds.

The facts of the present position are stated in great detail in Chapter VI, pages 139 to 165. It will be of value, however, to summarise the main factors which have contributed to this very serious state of affairs. These are :--

(1) The reduced purchasing power of the Indian consumer and the relative inelasticity of Lancashire prices.

(2) The nationalist movement in favour of "swadeshi" goods and its recent manifestation in the form of the boycott of United Kingdom cloth for political ends.

(3) Increased competition from Indian mills which has been stimulated (a) by tariff protection, (b) by the "swadeshi" and "boycott" movements, and (c) by the relatively high prices of Lancashire goods.

(4) Intense Japanese competition based on lower prices, which have had an irresistible appeal at a time of reduced purchasing power.

(1) The basic factor is undoubtedly the economic one viz. : that while the Indian consumer is only receiving 45 per cent. of pre-war prices for his jute, 93 per cent. for his cotton, 76 per cent. for his cereals, 80 per cent. for his hides, 114 per cent. for his tea and 82 per cent. for his oilseeds, he cannot afford to purchase the usual quantities of piecegoods, whether imported or Indian, at prices which are 21 per cent. above pre-war rates. Nor is this the complete picture. The cultivator, who is the ultimate consumer, has certain fixed cash payments such as rent, water rates, interest to the "Bania," &c., &c., which must be made whatever his gross income from the sale of his crops may be. This leaves his balance for the purchase of cotton cloth reduced to a greater extent than would be expected from the fall in the price of his agricultural products alone. Until, therefore, the relative prices of the cultivator's produce and of manufactured piecegoods change in such a manner as to increase his final balance for commodity purchases after deducting his fixed charges, there is little hope of any increase in the consumption of cotton piecegoods in India, whether imported or of local manufacture. As will be seen from the tables on pages 156-7 the consumption in India of mill-made cloth from all sources has declined from 4,210 million yards in 1913/14 to 4,183 million yards in 1929/30 and to 3,336 million yards in 1930/31, with a resulting reduction in *per caput* consumption from 13.29 yards to 12.04 yards and 9.49 yards. There are already signs in the Calcutta market that the purchases by dealers of Indian mill cloth have been overdone. The offtake is slowing-up and stocks tend to increase.



(2) While the long-period downward trend of imports of cotton goods from the United Kingdom is due to fundamental economic causes, there is no doubt whatever that the sharp fall since April 1st, 1930, is very largely attributable to the political boycott. An unprecedented slump in the piecegoods market in 1930/31 was inevitable on account of the severely restricted purchasing power of the country. The stage was therefore set for a most difficult period of trading when, in April, 1930, the boycott was launched by the Indian Congress, directed against all imported textiles in general and United Kingdom goods in particular. So widespread was the propaganda and such effectual coercion was brought to bear on cloth importers and dealers that, once the moderate imports of goods ordered before April, 1930, had been received, further arrivals were on a very small scale and forward purchases were reduced to almost negligible proportions. At the same time, it should be realised that the boycott would not have been so successful if the times had not been peculiarly propitious for its reception. Indian dealers were prepared to allow themselves to be coerced by political agitators in view of the fact that a postponement of the settlement of their commitments was to their advantage. They were only too glad of the opportunity to plead *force majeure* as a reason for not clearing their goods and for claiming concessions from suppliers in order to help them out of their difficulties. The closing of the markets under political pressure which prevented business being transacted with Lancashire has resulted in a healthy stock position at the present time. Had business proceeded in the usual manner, the market would probably now be faced with a recurrence of conditions somewhat similar to those of 1921/22, when it was flooded with stocks purchased at high rates with resulting repudiation of contracts and heavy losses all round. As it is, stocks of Lancashire piecegoods in India could, with a normal offtake, be cleared in 6 to 8 weeks and there has, so far, been very little repudiation of liability. This state of affairs is particularly fortunate in view of the heavy depreciation in the value of existing stocks due to the phenomenal fall in the price of raw cotton. To this small extent, therefore, the boycott may be claimed to have been a blessing in disguise.

On the other hand, quite apart from the unemployment and distress which has been caused in Lancashire on account of the closing and short-time running of mills, the boycott has brought such social persecution and general embarrassment upon dealers in Lancashire goods that many of them have been induced permanently to relinquish the business. Unfortunately, dealers have consistently lost money on their purchases of United Kingdom goods for some years and are therefore all the more susceptible to the pressure which is being brought to bear on them, on specious nationalist grounds, to abandon the trade. The dislocation of the usual channels of distribution throughout every link in the chain

from the importer at the port down to the village shopkeeper is one of the most serious results of the political movement and is likely to retard any improvement in the trade. A feeling of lack of confidence in Lancashire goods has been steadily growing during the past few years, not only among Indian importers and dealers, but also among many European merchant houses. They feel that the profits they make out of the trade are not commensurate with the risks they run. In the first place, competition has been, and is, difficult on account of the higher prices of the United Kingdom goods, and secondly, there is the ever-present fear of a revival of violent picketing and the chance of unsaleable goods being left on their hands. Where United Kingdom goods are of a type which has hitherto enjoyed a practical monopoly, the risk is not so great but in those cases where United Kingdom styles compete with Japanese or Continental, the merchant or dealer takes the line of least resistance and sells the foreign goods.

The sentimental bias in favour of "swadeshi" goods, which undoubtedly exists among large sections of the people, has received a great stimulus from the Congress agitation. Although there has been a suspension of more violent activities since the pact was signed in March, 1931, forceful persuasion by countless so-called "peaceful" means, such as threats of social ostracism and the 101 methods which are possible in this country, is proceeding in the upcountry towns and villages with undiminished vigour. The result is that the consumer in self-defence is turning to Indian-made goods and, so long as the agitation persists, he will continue to do so. So strong is the present movement that Indian mill products in many instances are commanding prices considerably in excess of those asked for Lancashire cloths of superior quality. This, however, can only be a temporary phase. The permanent feature, however, is that Bombay and Ahmedabad qualities will become established as the standard cloths on the market and it will be practically impossible to dislodge them.

(3) With reference to the competition from the Indian Mills, I would refer my readers to Appendix A on page 192 of my previous report, where they will find the most illuminating note, compiled by the Hon. The Commerce Member, regarding the increased duties on cotton piecegoods, which was submitted to the Assembly in March, 1930. Sir George Rainy draws the following inference from the figures he quotes:—

"Only about one-eighth of the imports from the United Kingdom compete directly with Indian goods, because in any class of goods which can be made from Indian cotton, the United Kingdom mills have been unable to face the competition of the Indian mills and have been gradually driven out of the market. They hold their own only in those classes of goods which cannot be made out of Indian cotton. British goods have been displaced by Indian goods during a period in which the shelter afforded by the revenue duty was 11 per cent. or less. In these circumstances, it seems impossible, after the duty has been raised to 15 per cent., that Lancashire should re-capture the market for those classes of goods which can be made from Indian cotton."

It is also clear from the figures that before the end of 1928/29 Indian dhooties had displaced a substantial quantity of Lancashire dhooties made from the coarser counts and that the United Kingdom had lost five-twelfths of her trade in coloured goods, partly to Japan but mainly to India.

Since these conclusions were drawn in March, 1930, the Indian mills have received the advantage of the additional 4 per cent. import duty as well as of the remarkable fillip which the boycott movement has given to all "swadeshi" productions. It is not surprising therefore that their total production advanced by six per cent. from 2,419 million yards to the new record figure of 2,561 million yards. The production of grey dhooties rose from 776 to 831 million yards; grey shirtings from 585 to 642 million yards; sheetings, T-cloths, &c., from 90 to 122 million yards, and khaddar from 124 to 175 million yards. As I stated last year, the United Kingdom trade in grey shirtings is doomed and that in the finer grey jaconets is likely to be severely curtailed on account of the substitution of less expensive cloths. There remains the formerly immense import of grey dhooties which has fallen from 806 million yards in 1913/14 to 486 million yards in 1928/29 and less than 170 million yards in 1930/31. During the four months ended July 31st, 1931, the imports were 33 million yards, and of these Japan shipped an increased quantity. Although the Indian mills (largely Ahmedabad) have hitherto confined their attention to the coarser styles of shirting dhooties made from Indian cotton, there is no doubt that they are determined to compete in the finer styles made from American and Egyptian raw material. Imports of American cotton amounted to 12,000 tons and of Egyptian to over 21,000 tons in 1930/31, while during the first four months of the current fiscal year the quantities were 13,800 and 6,279 tons respectively. The present narrow margin between the prices of the American and the Indian staple is acting as a great stimulus to the use of imported cottons. It would appear, therefore, that there will be a rapid encroachment on the part of Indian mills into the medium-fine styles of grey dhooties which, combined with the tendency towards substitution of the coarser for the finer qualities, owing to restricted purchasing power *plus* Japanese competition, will result in a permanent decline in the Lancashire dhootie trade.

So far as plain bleached goods are concerned, there is very little competition from Indian mills, but their productions of bleached cloths with coloured woven stripes compete with certain imports of coloured goods. The production of coloured goods in the mills declined from 604 million yards in 1929/30 to 557½ million yards in the year under review. For further details with regard to local production reference should be made to Chapter VI.

(4) *Japanese Competition.*—Although Japan has suffered from the economic depression in India, she has been able to turn the

boycott of United Kingdom goods to her own advantage and has increased her share of the total trade to 36 per cent. The policy of standardisation on certain types of grey shirtings, &c., produced by the Toyoda automatic looms has enabled Japanese manufacturers to surmount the enhanced tariff and to land their goods in India at prices far below those of Lancashire makers; at rates, in fact, which are seriously competing with the Indian mills. These low prices have met the needs of the impoverished Indian consumer with the result that Japanese goods have been cleared in spite of a boycott ostensibly directed against them also. In 1930/31 imports of Japanese grey goods for the first time exceeded, both in quantity and value, those from the United Kingdom, while during the first four months of 1931/32, imports of Japanese grey goods were 68 million yards as compared with 25 million yards from the United Kingdom.

The most serious feature of Japanese competition, however, is their incursion into the trade in bleached goods, which had hitherto been a monopoly of the United Kingdom. In 1928/29 Japan supplied 1 per cent. of the value of bleached goods imported, in 1929/30 2.5 per cent., in 1930/31 8 per cent., and in the first four months of 1931/32 no less than 13.8 per cent. Japanese qualities of white shirtings, drills, jeans and nainsooks are becoming established and even white mulls are now being placed on the market. A recent Calcutta market report states that it is becoming extremely difficult to sell nainsooks of United Kingdom manufacture in competition with the attractive rates at which the Japanese products are available, but United Kingdom varieties of standard mulls still predominate.

The imports of Japanese artificial silk products in 1930/31 accounted for 71 per cent. of the whole trade and, as I have stated elsewhere, Japanese standard artificial silk taffeta and other qualities are now being substituted for many items of coloured cotton cloths on account of their phenomenally low price. By importing pure artificial silk cloths in bright colours and attractive designs at prices as low as 4 to 5 annas per yard, the Japanese are gradually effecting a revolution in fashion in favour of artificial silks as against printed and dyed cotton goods. In the first four months of the present fiscal year imports of artificial silks from Japan accounted for 86 per cent. of the total, the United Kingdom supplying 2½ per cent.

Japanese competition is based simply and solely on the price factor. Just as Mr. Henry Ford realised the world's needs for a standardised transport vehicle at the minimum possible cost, so the leaders in control of the highly-centralised and closely-knit cotton industry of Japan have realised the need throughout the East for standardised cloth at rates which are within the limit of the restricted purchasing power of the impoverished masses of India.

China and Africa. Although Japanese manufacturers are not prepared to meet the demands of thousands of dealers for a multiplicity of dimensions, designs, shades, borders, headings, &c. which have, in the past, prevented their Lancashire competitors from securing long runs of production, nor are they prepared to grant extended terms of credit or other exceptional facilities to their clients, they have forced their way into the market by offering an article which the masses could afford and which importers and dealers—whatever their own interests and prejudices might be—have been forced to stock and sell. Even the Indian mills are suffering most severely from Japanese competition in plain goods and it is probable that they will before long submit representations for additional tariff protection against them.

It will now be convenient to deal with the questions of representation and distribution. Hitherto, the textile trade in India has been the best organised of all import trades. The most wealthy and important import merchants, both European and Indian, have employed trained staffs in their piecegoods departments and in many cases have devoted their whole capital and energies to the trade. The Indian guarantee brokers and dealers in the principal distributing centres are the wealthiest and soundest of their class, and a highly specialised organisation has been built up extending from the purchase of the goods in Manchester and elsewhere to their final distribution in the village of India. A variety of methods of distribution have been in vogue. These include the few powerful firms who undertake their own purchasing, converting and packing in their Manchester warehouses and sell the goods through their branches in all the principal Indian distributing centres. Then we have the European importers purchasing from Manchester shipping merchants and selling to the Indian dealers. Since the war there has also been a growing tendency for Indian importers to deal direct with Manchester shipping merchants and a considerable portion of the trade is conducted by this method, which involves certain risks in times of crisis. There are also two or three Manchester shipping merchants with their own branches in India and, lastly, we have two or three East Lancashire manufacturers of dhooties and other staple grey goods who either maintain an office in Calcutta or else visit the market each cold weather selling their products direct from the mill to the Indian importer without any intermediary whatsoever.

If we examine the distributing methods of our competitors we do not find any novel or more efficient systems. The Japanese manufacturers sell a large portion of their goods through half a dozen powerful Japanese merchants established in Bombay and Calcutta, who hold stocks and sell ex godown for cash. The remainder are shipped by merchant houses in Japan against orders from Indian importers, confirmed bankers' letters of credit being frequently insisted upon. The goods are usually financed through

the Japanese banks, who have branches in India, and the drafts are at the usual usance of sixty days sight D/P. These methods do not disclose any improvement on the United Kingdom system. Similarly, Italian, Swiss and German shippers either sell their goods through the medium of European merchants at the ports or—more usually—by direct shipments to importers in the bazaars. It cannot, therefore, be maintained that our Japanese and Continental competitors enjoy advantages derived from improved methods of distribution. So far as the Indian mills are concerned, the functions of sales and distribution have, until the past year, been very largely neglected and the selling organisation, both in the home market and overseas, has been most primitive and fortuitous. This was clearly emphasised by the Indian Trade Mission to the near East and Africa in 1928, who recommended that improvements should be made in the finish, packing, sampling and making-up of Indian textiles and that the millowners should establish a combined selling organisation. Very little was done until 1930, when the Bombay Millowners' Association promoted the formation of the Bombay Mills Cloth Selling Agents Association and took other steps which are outlined on pages 154-6. The Indian mills appear to rely upon their protected position and the assured demand for their products from motives of national sentiment and political feeling rather than upon the efficiency of their distributing organisation.

The reason for the success of our Japanese and Continental competitors lies, simply and solely, in their ability to quote lower prices. As evidence of this, I would cite the case of Lancashire manufacturers of grey dhooties and shirtings who bale their goods at the mill, effect the shipping themselves, and sell direct to some of the most influential Indian importers in the Calcutta bazaar. These firms during the past few years have been consistently undersold by their Japanese competitors in spite of the fact that the method of distribution is the most economical which can be devised. The remedies, therefore, should be sought in the rationalisation of the Lancashire industry and in the concerted efforts of the Joint Committee of Cotton Trade Organisations rather than in any sweeping change in the method of distributing the goods in India.

At the same time, it must be admitted that the events of the past eighteen months have imposed a great strain on those merchants, Indian and European alike, whose interests are concerned with the sale of United Kingdom textiles. When the crisis is past it will be found that several European importers have discontinued the business and that great numbers of Indian importers and dealers at the ports have either failed or merely closed down their trade in United Kingdom goods as they find it to be unprofitable. It is still difficult to assess the effect of the recent agitation on the vast network of Indian distributors upcountry, but there is no doubt that the whole organisation has been severely shaken and that it will

emerge from the crisis attenuated in numbers and with reduced strength and influence. It is axiomatic that unless a trade provides a profit commensurate with the risks involved, it is useless to the merchant, no matter what his race or political views may be. The recent Government Mission sent to the Far East by H.M. Government in the United Kingdom, pointed out the inherent weakness in the fact that there are in China and Japan no distributors of Lancashire goods who are directly concerned with the production of those goods. A very similar state of affairs obtains in India where, with one or two important exceptions, the distribution of our goods is in the hands of merchants who are perfectly ready to place their organisation and facilities at the disposal of Japanese, Continental or any other suppliers, when their goods command a readier sale or provide a wider margin of profit. At the present time a considerable number of the principal European importers in Calcutta are dealing in Japanese goods and are extending their connections in Japan and also on the Continent of Europe. Many Indian importers, who hitherto confined their purchases to Lancashire qualities, have now decided that they cannot afford to wait until Lancashire prices are reduced and the boycott movement subsides or until they can make offers for quantities sufficiently large to induce a manufacturer to restart his mill. They are therefore turning to the sale of Japanese and Indian mill goods. *It should be realised that unless steps are taken very quickly to re-establish the competitive power of United Kingdom goods we shall lose the valuable co-operation of many efficient distributing organisations upon which we have relied for more than half a century.* Meanwhile, Manchester merchants appear to be losing that close touch with the Indian situation which has been so valuable in the past. Travellers no longer visit India, correspondence falls off in these difficult times and, to an observer on the spot, it sometimes appears as if the greatest single export trade in the world is gradually being allowed to "peter out" no active measures being taken to deal with the situation. I was recently informed by the senior of one of the most important British import houses in India, whose connections with Lancashire have been particularly close for well over fifty years, that he had been able to clear his whole stock of Lancashire goods without very heavy loss and that his brokers were offering new business which, in normal circumstances, he would have had no hesitation in taking. In view of the uncertainty of the situation and of his lack of confidence in the future, he had deliberately declined to entertain this business (which would have been most valuable to Lancashire in these difficult times) as he was able to employ the firm's capital to better advantage in other directions. This statement, which was made in July, 1931, illustrates the weakness of our present position more clearly than anything else that I can usefully report on the subject.

And what of the future? It is inevitable that the Indian mills will encroach to a rapidly increasing extent upon the finer types

of plain fabrics as they use more and more American and Egyptian cotton for the spinning of finer yarns, for which many existing plants and almost all the new mills are being equipped. Their competition, therefore, cannot now be said to be limited to the types of cloth which can be manufactured from Indian cotton. The trade in plain grey goods has already passed either to India or to Japan with the exception of fine jaconets, the consumption of which is curtailed owing to the high incidence of the  $3\frac{1}{2}$  annas per lb. minimum import duty. The valuable trade in bordered dhooties is being threatened both by the Indian mills and Japan and will also be affected by the tendency in India to spin finer. Having once appreciated the effects of protection, the Indian millowners, as time goes on, are likely to appeal for further fiscal assistance as the increased range of their productions brings them in further conflict with imported goods. Whether they will have the same influence in a future Federal Legislature, where the representatives of the consumers will probably be more vocal and where, it is to be hoped, racial considerations will no longer be an important consideration, remains a moot point, but there is little doubt that a self-governing India will take full advantage of her fiscal autonomy in order to promote her industries. It seems likely, therefore, that the vast trade in imported grey goods will in future be reduced to the finer styles of dhooties and jaconets which are not manufactured either by India or Japan. This blow to our trade in staple greys is particularly unfortunate in view of the fact that the efforts which are being made in Lancashire by the Joint Committee of Cotton Trade Organisations to standardise on certain qualities of grey goods and to adopt all possible means of reducing prices, e.g. by the greater use of Indian cotton, automatic looms, &c., &c., have as their main object the revival of this trade. Lancashire may find that, having by dint of rationalisation, regained her competitive power, her efforts to regain a footing in the Indian market may be frustrated by the fiscal policy of an autonomous India.

So far as bleached goods are concerned, the future menace lies in Japanese competition, which is rapidly embracing a very wide range of styles, and which will undoubtedly tend to increase in spite of the handicap of an extra 5 per cent. in duty. As this is the only section of the trade which is still firmly held by Lancashire and as it constitutes our principal hope for the future, it is highly desirable that every possible effort should be made to study and grapple with the new competition. The trade is a vast one—571 million yards valued at Rs.17 $\frac{1}{2}$  crores (£13,000,000) in 1926/27, but reduced to 271 $\frac{1}{2}$  million yards valued at Rs.6 crores in 1930/31. So far, however, there has been no sign in India of any special effort being made on the part of the manufacturers or bleachers concerned to cope with the new factor.

It is difficult to forecast future developments in the coloured goods trade, which is so largely affected by changing fashions.



We have already noticed the inroads which have been made by the substitution of Japanese pure artificial silk goods for many styles of dyed and printed cottons. Whether the Japanese will be able to continue to land their standard qualities in India at prices as low as 4 annas per yard is still uncertain but, at the present time, these rates are completely disorganising the market. The falling-off in imports of prints and coloured woven goods has been much more serious than the reduction in the case of goods dyed in the piece. Meanwhile the project for the establishment in Bombay of a combined bleaching, dyeing and printing works still hangs fire and, as will be seen in the statement on page 155, the Bombay Mill-owners' Association do not consider the present to be an opportune time but are of opinion that the scheme is capable of adoption when trade conditions improve.

The picture which I have drawn may appear to some to be an unduly gloomy one and I may be accused of being unconsciously influenced by the entirely abnormal situation during the past eighteen months which has resulted from the economic depression and the boycott agitation. I admit that both these factors are transitory, but their effects will be felt for many years and recovery will be slow. Taking all circumstances into consideration, it will, I think, be conceded that the United Kingdom textile industry must face a permanently reduced trade in the Indian market. It will be many years before we can expect to regain even the volume of our exports in 1928/29. The only hope for the future lies in such an improvement in the standard of living in India as will materially increase the demand for those finer fabrics, in the production of which Lancashire is still pre-eminent. For this we must mainly rely upon the greater prosperity of the urban population. The Indian ryot, in common with the peasants of other Eastern lands, will be clothed almost entirely by the products of his own country.

**Iron and Steel.**—The iron and steel trade has been only slightly affected by the political movement but has suffered severely from the curtailment of Government and industrial programmes and also from the restricted purchasing power of consumers of galvanised sheets on account of the slump in jute. After attaining the record figure of 1,197,000 tons in 1927/28, total imports declined to 973,000 tons in 1929/30 and shrank to 622,000 tons last year, the British percentage being reduced to 44, while the shares of Belgium and France advanced to 33·7 and 4·7 per cent. respectively. All available details with regard to the trade are given in Chapter VI. The most disturbing feature is the phenomenal reduction in the imports of British galvanised sheets from 286,046 tons in 1928/29 to 200,295 tons in 1929/30 and 91,373 tons in 1930/31. This downward trend synchronised with an increase in the Belgian trade from 32,063 tons in 1928/29 to 50,974 tons in 1929/30, which was only reduced to 48,150 tons in 1930/31. Belgian competition in 1930 brought the price down to £11 15s.

per ton c.i.f. Calcutta, representing the lowest quotation for thirty years. The Belgians now largely dominate the sheet market in Bombay, but have so far been unable to make great headway in Calcutta. Since the increase last year of the protective duty to Rs.67 per ton, the competition of the Tata Iron and Steel Co. is likely to be much more serious. Their tonnage output in 1930/31 was only 26,450, but considerable extensions are planned. So far, the marketing of British sheets (amounting in 1928/29 to over Rs.6 crores in value) has been left entirely in the hands of British merchants in London and India, *two or three of whom have already placed all their facilities at the disposal of the Belgians and are in fact, largely responsible for the development of Belgian competition.* The time has come when the leading United Kingdom sheet makers will be obliged to exercise some supervision over their marketing in India, avoiding—if possible—any dislocation of the business of those merchants who are loyal to them. I have, for some time, advocated the formation of a branch of the British Sheetmakers' Association in Calcutta for intelligence, control and propaganda purposes. These activities might be extended by the establishment of central stock depots at Calcutta and Bombay, from which the merchant distributors might always rely upon being able to draw their requirements of the several brands. Such a departure would enable sheet rollers in the United Kingdom to keep in touch with the developments of the market, would ensure the maintenance of adequate stocks, and would tend to reduce excessive local price fluctuations. This is not the place to discuss the advantages of the establishment by United Kingdom interests of a sheet mill in India, but in view of the magnitude of our interests in this trade and of the serious threat to them caused by the high tariff and Belgian competition, such a development would appear to be inevitable.

United Kingdom rollers of structural sections, plates and bridgework are on the whole maintaining their share of the trade so far as British standard steel is concerned, but are finding Belgian, German, French and Luxemburg competition very acute in steel bars and other items for the bazaar trade in which the British standard specification is not insisted upon. The Tata Steel Works are competing keenly in all sections of the trade and are now in a position, not only to supply practically the whole of India's requirements of railway rails and accessories, but also to roll nearly every section required—whether it be to the British standard or not. The recent awards of contracts for the steelwork in large bridges such as Bally and Sagaing show the severity of the competition with which we are faced. Although United Kingdom bridge builders of world-wide repute are strongly represented in the country, they find it almost impossible to secure the large contracts in view of protective import duties and also—a much more intangible handicap—of the expressed desire of the Government of

India to retain as much work as possible in India. A United Kingdom tenderer for an Indian Government contract such as a bridge cannot now count upon receiving the order merely because his is the lowest satisfactory tender, which may even be recommended for acceptance by the Engineer in charge of the work. If his competitor is an Indian firm, the Government of India Authorities may use the discretion, with which they are now armed, and award the tender to a local firm with the object of assisting Indian industry. Moreover, penalties are rarely, if ever, enforced against Indian contractors for undue delays and other infractions of the contract. In these circumstances, it is not surprising that certain United Kingdom contractors prefer to extend their activities in other parts of the world, where they consider that they receive fairer treatment.

The most satisfactory solution of many of our difficulties in India would be a mutual *rapprochement* between the steel industries of the United Kingdom and of India with the object of preventing overlapping of effort, a mutual arrangement of rolling programmes, delimitation of markets and combination against foreign competition. From such a form of rationalisation on Imperial lines, the industries of both countries would receive great advantages, foreign competition would be checked, prices would become more stabilised and the consumer would be better served.

**Government Stores and Railway Material.**—The special requirements of this valuable trade are dealt with at length in Chapter III, from which it will be noted with satisfaction that United Kingdom suppliers are meeting the changed situation created by the inauguration of the rupee tender system by opening branch offices and service organisations, floating separate limited liability companies in India, attaching experts to their technical agents and in other suitable ways. The difficulties of catering for Government requirements are increased owing to the fact that the declared policy of the Government of India as laid down in the Stores Rules is "to make their purchases of stores for the public service in such a way as to encourage the development of the industries of the country to the utmost possible extent consistent with economy and efficiency." It is further laid down that "Departments of the Government of India, or officers specially authorised in this behalf, may, when they are satisfied that such a measure is justified, allow a limited degree of preference in respect of price to articles produced or manufactured in India in whole or in part." Consequently, over and above the protective Customs duties levied at the ports, Indian industrialists enjoy a further protection, of an unstated amount, when tendering for Government contracts. As we have seen in the case of steel bridgework for railways, while this provision may give a stimulus to existing Indian industries and to the erection of new works in the country, it also operates unfairly to many United Kingdom firms who are

in a position to supply Government requirements on most economical and advantageous terms. One or two suppliers have overcome the difficulty by erecting works in India and then successfully claiming both fiscal protection and also advantages in tendering for Government requirements. It must be admitted, however, that Indian political feeling favours discrimination against such United Kingdom-owned industries and, unless it is possible to safeguard their interests in the forthcoming political settlement, they run the risk of discriminatory treatment at the hands of an autonomous Government of India.

A further difficulty resulting from this policy of using the purchase of stores as a lever for the encouragement of local industries is the tendency towards the lowering of the standard of quality of the stores purchased in order to enable Indian manufacturers to quote. The following statement of the Director-General of the India Store Department, London, in his report for the year 1929/30 is interesting in this connection :—

“ Instances occur where material differences are apparent between the qualities of goods purchased through Indian merchant firms and those previously bought by this Department. An inspection certificate is issued for every consignment, and whenever desirable a note is entered on the certificate indicating the relative quality of the consignment as compared with the standards hitherto demanded by this Department. It must be understood that the Department is necessarily bound by the conditions of the order placed in India and is unable to reject supplies which, though below the standard previously required, are still within the terms of the specification or description on which the contract is based. ”

The insistence on the factor of low price in the placing of Government contracts is very disturbing to manufacturers who have supplied stores to the Indian Government for years and who have built up their reputation on the basis of quality and reliability. Such firms, very naturally, feel most acutely the placing of contracts, on a price basis only, with Indian or foreign firms, whose goods may be comparatively unknown or may have merely passed the tests in India. This constant emphasising of the basis of low price must inevitably involve low quality also or, to use the term employed in the Stores Rules, “ quality sufficiently good for the purpose.” It also neutralises the goodwill resulting from long years of association with India’s particular requirements and reduces all considerations to one dead level of cheapness, thereby penalising the specialist contractor and opening the door wide to any foreign firm, who may be on the Department’s list and who may be prepared to “ cut in.”

For some years United Kingdom suppliers have been urged to expand their Indian organisation in order to be in a position to give as efficient service to the purchasing departments in India as their Head Offices have rendered for so many years to the Director-General of Stores in London. This, of course, entails increased,

expenditure to cover the overhead charges of the Indian organisation. The officials of the Indian Stores Department are usually most reluctant to make any allowance for the additional cost of this technical service and endeavour to obtain the same prices as would be quoted in London *plus* the bare freight, insurance, importing and landing charges.

In these times of enforced economy when all that a country such as India can afford is "quality sufficiently good for the purpose," difficulties such as I have outlined are bound to arise. On the whole, however, the rupee tender system may be said to have, so far, worked without imposing undue strain or hardships on United Kingdom suppliers.

**Electrical Machinery and Plant.**—The imports have not so far been affected either by the economic crisis or by the political agitation. The efficient branch organisations, which are maintained in India by the leading United Kingdom manufacturers, keep in close touch with all developments and render excellent services. The British percentage is maintained at 76. During the past few years valuable orders have been received for railway electrification schemes and hydro-electric projects but these are now nearing completion and the disinclination of the Government of India to embark on large capital works in these times of financial stringency will probably create a temporary lull in activity during the next year or two. There is also likely to be a reduced demand from private power companies for similar reasons of finance. Mention should be made of the activities of American financiers through the medium of an Indian Company, which has recently been formed for the purpose, in obtaining a controlling interest in power supply companies in Western India. The Poona Supply Co. has already been purchased, the control of the Karachi undertaking has also been acquired, and one or two other interests are threatened. An allied group of American financial interests now share with the Tata Co. the managing agency of the powerful Tata Hydro-Electric group of companies which supply the bulk of the power to the Bombay mills. It would appear therefore that, before long, American interests will have secured control of the whole chain of important power supply units extending from Bombay to Karachi. In view of the close connections which exist between these American entrepreneurs and the International General Electric Company, United Kingdom manufacturers' representatives in India are viewing these developments with some concern.

**Industrial Machinery and Millwork.**—Before the war the United Kingdom supplied 90 per cent. of India's imports. This proportion has now been reduced, on account of American and German competition, to just under 75 per cent., at which figure it remained steady during the past two years. The first four months

of the present fiscal year April-July, 1931, show a very heavy reduction in United Kingdom imports and an increase in the share of Germany; this confirms the forecast made in Chapter VI that United Kingdom manufacturing engineers will have to face a lean year owing to the curtailment of Government purchases, the virtual completion of most of the principal public works projects and the unprecedented depression in India's industries, which precludes extensions and renewals for some time.

United Kingdom makers are holding their own in the supply of textile machinery notwithstanding the strong anti-British political movement in Ahmedabad and Bombay. It is expected that they will obtain their usual share of the orders resulting from recent mill extensions at the former centre. The imports of prime movers, notably oil engines, have declined by one-half in the first four months of the current year, while arrivals of railway locomotives have fallen from Rs.59 to Rs.19 lakhs. The trade in boilers also reflects the severe industrial depression. Machine tools are suffering from the lack of railway workshop orders and from the general slackness. There has been an improvement in the imports of oil crushing and refining plant coinciding with enhanced German shipments, but arrivals of mining machinery, rice and flour milling plant, sewing machines and tea machinery show material reductions.

It may generally be stated that with few exceptions, United Kingdom machinery manufacturers are adequately represented in the Indian market. The tendency for many years has been either to operate branches of their own, staffed with trained engineers and erectors, or to attach an expert to the staff of their mercantile agents. One or other of these methods is almost imperative if the Indian business is to be adequately dealt with and provided that the turnover warrants the expense. The Indian industrialist is now branching out into many highly complex industries and is determined to have the most highly scientific advice and to purchase the latest and most improved types of plant which are obtainable. There are scarcely any firms of consulting engineers available. The trained managers of the branch offices of United Kingdom engineering and machinery firms have, in the past, filled this gap and have rendered, gratuitously, invaluable services to Indian industrialists. This help will be required more than ever in the future. The manufacturer who is prepared to advise his client on the spot as to the layout of a scheme, to draw up specifications, and to furnish the fullest technical information will have, as a rule, the first call on an order, irrespective of whether that order is placed locally with him or in London direct with the works. The leading machinery merchants in India usually employ one or more trained engineers to look after their business, but these men cannot be fully conversant with the productions of all the United Kingdom manufacturing firms they represent and their general

services and local knowledge require to be reinforced by the services of specialists from the works. The manufacturer who is prepared to strengthen his local organisation in this way will be placed in an impregnable position as compared with his competitors, who either remain in England or are represented in India by mercantile agents with little or no technical knowledge of the specialised machinery requiring attention.

In the case of large plant, such as watertube boilers, waterworks and pumping installations, electrical and steam power plants, pipelines, electric transmission systems and cables, and complete installations of industrial machinery such as flour mills, rice mills, saw mills, oil mills, sugar refineries, paper mills, chemical works and by-products plants, &c., the necessity for economical and efficient erection is paramount in a country with peculiar climatic and other conditions such as India. Considerable waste of money and dissatisfaction has been caused in the past in cases where machinery has been purchased in London by officials and merchants with little knowledge of local conditions and where mistakes have been made both in the design of the plant and in the erection of it. It must always be remembered that, speaking generally, engineers in India, whether they be in Government, Municipal or private employ, are mainly occupied with administration and maintenance work and are, therefore, usually out of touch with the latest engineering practice. Indian labour is also, comparatively speaking, unskilled, and requires constant and expert supervision. The United Kingdom manufacturer, therefore, who is prepared to maintain an erecting staff in conjunction with his selling and technical organisation in India will not only be placed in a strong position *vis-à-vis* his competitors in his securing of orders, but will be able to effect considerable economy and give satisfaction to the purchaser by quoting for the complete plant, erected and in running order, thereby making an efficient job and establishing his position for renewals and further extensions.

**Mill and Engineering Stores.**—The trade in mill and engineering stores for the jute and cotton mills, engineering works, collieries, tea gardens, and the various other industries which are established in India is already a very valuable one and is likely to expand steadily. A very large proportion of the requirements of these industries, particularly in Bengal, where the firms of managing agents are usually British, is purchased through the London and Glasgow offices of the managing agents, and this largely accounts for the predominant position of United Kingdom suppliers. During the past few years, however, the tendency has been to purchase in Calcutta, Bombay and other large centres from local merchants, who specialise on this type of business and maintain stocks. There are many such merchant houses of good standing who are prepared to undertake additional agencies for

manufacturers of such items as paints, belting of all kinds, packings, bobbins, leather specialities for textile mills, wire ropes, high speed steel and Sheffield specialities, tools, oils, chemicals, &c. They usually buy outright for their own account and resell from stock, the trade being financed either by cash against documents in London or, more usually, by 30, 60 or 90 days' sight drafts, documents against payment. It is to be hoped that United Kingdom manufacturers, who are still unrepresented in India, will take steps to place themselves in touch with reliable merchant firms engaged in this trade. Suitable names together with further particulars may be obtained from the Department of Overseas Trade.

Competition from the United States and Germany is keen and tends to increase. Both these competitors, while suffering from the reduced turnover, have been able to take some advantage of the recent political bias against United Kingdom goods. Thus, American belting is now being sold to the Ahmedabad mills, while German mill stores of all kinds are being purchased in increasing quantities in both Bombay and Ahmedabad. This development, however, is only partly due to the boycott as the low prices of German stores have been attractive at a time of restricted purchasing power. The movement has not been so noticeable in the Calcutta market, where considerations of quality and suitability for the purpose are carefully weighed when testing prices.

**Liquors and Provisions.**—These valuable trades which accounted, even during the past depressed year, for a combined import of over £6,000,000 sterling have not been affected by the boycott agitation to any appreciable extent, but are naturally suffering from the depression with its concomitants of reduced incomes, of unemployment among the European and Anglo-Indian communities and of restricted purchasing power on the part of the Indian clientele. It is likely that the full force of the slump will be felt during the current year, when the effects of the greatly enhanced import duties on wines and spirits, beer and provisions, which were imposed in March last, will have become apparent. During the months of April-July, 1931, imports of all liquors fell from Rs.106½ lakhs to Rs.77 lakhs and provisions and oilman's stores were reduced from Rs.153 lakhs to Rs.111 lakhs. United Kingdom shippers are holding their ground in a satisfactory manner, thanks to their efficient methods of representation, which I will now outline:—

The distribution of both liquors and provisions is largely in the hands of powerful merchant importers in the principal ports who buy outright for their own account, and, in addition, frequently hold agencies for leading United Kingdom, French and American firms. They act as catering contractors to railways, hotels, clubs, and messes, supply retail to the European community, and wholesale to the bazaar dealers for the Indian demand.



In addition, there are one or two firms of commission indent merchants in each port, who specialise on the bazaar trade. Indents are collected by their brokers and are then sent home for execution, the importing merchant usually retaining a commission of  $2\frac{1}{2}$  per cent. for his services. The drafts are either drawn on him direct or else on the bazaar dealer with the importer as a "case of need." These merchants also accept agencies for United Kingdom manufacturers and well-known exporters, usually on a 5 per cent. commission basis.

One or two of the leading distillers and wine and spirit factors also have their own depots in Calcutta and Bombay, whence they supply the wholesale trade only. Other exporters, both of liquors and provisions, whose brands are well known in the market, do not confine their sales to any one firm of agents, but accept indents from all sources and are often willing to draw on the leading bazaar dealers as well as on the European firms. In the case of small Indian dealers, however, they find it safer to insist on their indents being transmitted through a reputable European house, who will act as a "case of need." Travellers are sent out to India each cold weather, who visit all purchasers, effect sales, investigate complaints and such questions as infringements of trade marks, show new brands, and return home in the summer to report to their principals on the state of the market, changes in demand, and the financial status of their various clients. This is, undoubtedly, the most satisfactory form of representation in the case of established and well-known brands.

My advice to British exporters of wines, spirits and provisions, who have hitherto not had experience of the market, would be, firstly, to place themselves in touch with the London Houses of the leading importing firms in India in order to learn whether their goods are saleable in this market. This should be followed up by sending out ranges of samples with full information and c.i.f. prices in sterling, the goods being made up and packed in accordance with the views of the importers. A detailed report having been received from India, the exporter could then consider whether he should appoint importing firms as his sole agents for the different markets, or whether he should sell in the open market and rely upon his own travellers to look after his interests. If the goods are novelties or are articles which are likely to find a very wide sale, the latter method would probably be the more advantageous. On the other hand, if the line is an ordinary one, he would probably be well advised to appoint leading importers in each centre as sole agents. He will also find that the larger and more influential importers will naturally not go to the trouble and expense of introducing new brands unless they are recompensed by a sole agency agreement for a term of years. In the case of manufacturers of well-known brands, who produce both the high qualities for the European demand and also the lower-priced

grades for bazaar requirements, it may be desirable to divide the agency on these lines, and to appoint a leading firm of European retailers for the superior brands, and a commission indent house for the bazaar trade. In any case, it is always advisable, after the goods have been placed on the market, to send out a travelling representative to report on the conditions and to conduct general propaganda work.

**Soap.**—As will be seen from the analysis on page 203 imports of household and laundry soap fell from 383,656 cwt. to 287,127 cwt. and those of toilet soap from 50,862 cwt. to 32,354 cwt. during the year 1930/31. This downward movement has been continued during the months of April-July, 1931, when arrivals of household and laundry varieties fell from 118,806 to 112,160 cwt. and of toilet soaps from 12,826 to 11,798 cwt. The British share in the value of the total soap imports remained unchanged at 87 per cent. in the last two years, but during the first four months of the current fiscal year it stood at 83 per cent. as compared with 90 per cent. in the corresponding period of 1930. There is no doubt that the boycott campaign contributed to the reduction in imports from the United Kingdom particularly in the Bombay market, which is an important one. Although the British varieties were not displaced by other foreign makes, the movement towards the increased local manufacture of substitutes received a great fillip. "Swadeshi" soaps have hitherto been mainly produced on the Malabar Coast but, during the past year, the manufacture of "so-called" soap has been undertaken all over India and has contributed to a consequential increase of 42,000 cwt. in the imports of caustic soda. No modern soap-making plant has yet been established and it is confidently expected that, when trade improves, United Kingdom makers will regain their position, which is firmly based upon cheap and excellent products suited to the needs of the market together with an efficient marketing and propaganda organisation.

**Heavy Chemicals.**—One of the most satisfactory features of the recent crisis is that the steadily increasing market for chemicals has been very slightly affected. The total imports were only reduced from Rs.279 to Rs.261 lakhs in 1930/31 and, in the first four months of the current year, they actually rose from Rs.93 to Rs.93½ lakhs owing to considerably increased imports of two United Kingdom specialities—carbonate of soda and caustic soda, which offset reductions in the case of sulphur, potassium compounds, acids and disinfectants. The increased activity in the Indian textile industry is reflected in heavier imports of bleaching powder. The British share fell last year from 57 to 54 per cent. while that of Germany rose from 15½ to 18½ per cent. German competition is keen and the market is very largely a battleground

for the United Kingdom and German groups, each of which disposes of an efficient and widespread marketing organisation. The recently imposed protective duties on hydrochloric, nitric and sulphuric acids, alum, aluminium sulphate, copper sulphate, magnesium sulphate, sodium sulphate, sodium sulphide, zinc chloride and magnesium chloride, will stimulate the nascent Indian chemical industry, but the market is so vast and capable of such expansion, as science is applied to agriculture and industrial development becomes widespread, that there would seem to be ample scope for the products of both the Indian and the United Kingdom industries. The entry into the market last year of trial shipments of Russian alkalis, which are being widely distributed by the depots of the Havero Trading Company, and which are quoted at rates much below those ruling in the market, introduces a fresh factor which may become a serious menace.

**Tobacco.**—The enormous trade in cigarettes, both imported and locally manufactured, has been an easy target for the activities of political boycotters and has suffered more from political agitation than any other important United Kingdom activity with the sole exception of cotton piecegoods. Imports of unmanufactured tobacco shrank from nearly 7 million lbs. in 1928/29 to  $4\frac{1}{2}$  million lbs. in 1929/30 and to  $1\frac{1}{2}$  million lbs. in 1930/31, which was the lowest figure recorded since the previous boycott movement of 1921/22. The Indian factories were either on short-time or were entirely closed for most of the year, creating serious unemployment and heavy loss both to the owners and to the Indian exchequer. From the point of view of United Kingdom industry, however, the most serious feature was the fall in the imports of United Kingdom cigarettes from 5,257,579 lbs. to 2,840,434 lbs. representing a decline in value from Rs.212 lakhs to Rs.118 lakhs. Although there has been some reduction in boycott activity during recent months, the fall in the imports of United Kingdom cigarettes during April-July, 1931, was from 1,146,123 lbs. (Rs.46 $\frac{1}{2}$  lakhs) to 685,942 lbs. (Rs.27 lakhs). The heavy surcharges of 15 per cent. on cigars, Rs.1-8-0 per thousand on cigarettes and 12 annas per pound on unmanufactured tobacco which were imposed in March, 1931, will seriously retard the recovery of the industry. Although the boycott of cigarettes will undoubtedly wane as it did after the 1921/22 agitation, the campaign as launched by Mr. Gandhi and his associates against both tobacco and alcohol has a certain moral background which will have an effect long after the purely political motive has disappeared. It is anticipated, therefore, that the recovery will be a slow one and that it will be some years before the trade regains its former dimensions.

**Drugs and Medicines.**—The valuable trade in drugs and medicines fell by 14 per cent. from Rs.2,26 lakhs in 1929/30 to Rs.1,94 lakhs in 1930/31. It is satisfactory to record an improvement in the first four months of 1931/32 from Rs.55 lakhs to

Rs.59 lakhs, largely due to increased arrivals of proprietary and patent medicines and quinine salts. The United Kingdom share in drugs and also in patent medicines and foods has been considerably affected by the political movement. The withdrawal by the General Medical Council of Great Britain of the recognition of Indian medical degrees provided the first excuse for a boycott movement. At a meeting of Indian members of the medical profession held in Calcutta on April 15th, 1930, a resolution was passed to the effect "that in order to record a protest against the unjustified and undeserved slur on the Indian medical graduates and that in view of the fact that the British public have by their silence connived with the General Medical Council, and in order to develop the resources of India in respect of medical goods and appliances, this meeting asks the practitioners of Bengal to avoid prescribing or ordering British medical goods, but to encourage Indian manufacturers by ordering their products. If import of such goods from foreign countries is found essential, this meeting asks the practitioners to order them from countries other than the United Kingdom." It was unfortunate that the inauguration of this movement coincided with the Bengali New Year when large contracts for drugs, &c. are normally placed by the Calcutta importers. The result was that United Kingdom products were neglected, while German, American and other foreign firms booked orders fairly freely. Conferences took place between British representatives and the leaders of the boycott movement, from which it became evident that the real influence was an attempt to stimulate the local "swadeshi" manufacture of drugs.

In June, 1930, some 147 Bombay dealers in patent medicines, drugs, toilet soap, perfumery and toilet preparations, signed an agreement to refrain from purchasing goods of British manufacture for a period of three months, which was subsequently extended. Both the movements, however, failed owing to the natural desire on the part of the dealers to continue trading. Although orders were, at first, only placed with British houses under a pledge of secrecy, trading has now become more general and the boycott factor is relegated to secondary importance. The main difficulties at the present time are, firstly, the competition of sound German products at lower prices and, secondly, the competition from both foreign and Indian preparations which are not equal to the standard of the British Pharmacopœia. The first difficulty is an almost insuperable one, but as regards the second handicap it is hoped that the report of the recent Indian Drug Committee will result in the introduction of legislation on the lines of the British Therapeutics Act or the American Pure Food and Drugs Act.

**Bazaar Metals.**—The statistical position of the copper and yellow metal trades is set forth at length in Chapter VI. The trade suffered from the boycott movement on the Bombay side and

dealers are still reluctant to undertake forward transactions. Elsewhere in India the political element was not so pronounced and the heavy decline was principally due to the restricted purchasing power of the masses. Prior to, and in the years immediately following the war, United Kingdom rollers of yellow metal sheets occupied a very strong position in the trade and consistently shipped over a crore of rupees worth per annum. German sheets at lower prices have now succeeded in securing 70 per cent. of the business. Similarly, in the case of copper sheets, German imports account for 30 per cent. and British shipments 27 per cent. The present position in the Bombay market is dominated by lack of confidence in the future. The recent heavy falls in the prices of brass and copper have depreciated the value of stocks in the hands of dealers, who—in view of the ever present fear of a revival of picketing—prefer to avoid the political risk by purchasing Continental goods, especially as these are usually lower in price than the United Kingdom article.

**Bazaar Hardware.**—Although efforts were made both in the Calcutta and Bombay markets to put a ban on the imports of United Kingdom hardware, these were not very successful and it will be observed from the statements in Chapter VI that the British share of a greatly reduced import actually rose from 35 to 36 per cent. while the German contribution fell from 33 to 30 per cent. The American position, however, remained steady at 12 per cent. The reduction in the British percentage from the pre-war figure of 57 is a measure of the declining competitive power of the United Kingdom in the Indian bazaars, where cheapness and a showy, meretricious appearance are generally far more important than quality and durability. Even before the war, Continental prices were lower than United Kingdom quotations for most cheap bazaar lines, but dealers were willing to pay a slight premium for United Kingdom quality, which was recognised, and we held a large share of the trade. Owing to the great increase in the cost of production in the United Kingdom since the war, United Kingdom prices of these low-grade articles have risen to such an extent that they are beyond the purchasing power of the masses. In many articles of hardware and sundry goods, Continental makers can now underquote to the extent of 15 to 30 per cent. The goods sold are probably in many cases of inferior quality, but they serve their purpose and, moreover, the Indian importers, dealers and other lesser middlemen are usually able to make greater profits in these goods, as they are dealing with consumers who cannot always judge intrinsic value and so long as the article is lower in price than their previous purchase, they will accept it. One hears of claims for inferior quality, finish, &c., but dealers admit that these only occur in a very small proportion of their transactions and are more than offset by the increased margins they make on the goods. The only remedy would appear to lie in the establishment

of separate plants for the manufacture by mass production of the cheapest types of articles suited to the trade. These goods should be marketed under entirely new names and trade marks, as it would be fatal to compromise the reputation for quality which our well-known marks have acquired after a century of trading. The extent of the demand for such articles is enormous, as it includes not only India but also practically all markets in the Near and Far East and a great part of South America. The only doubtful factor would seem to be whether, even with every labour-saving device, it would be possible to produce in the United Kingdom as economically as the Continental manufacturer can with his lower-paid workers.

As I have frequently stated, it is a notable fact that there are in India remarkably few British merchant houses who devote their attention to the bazaar trade. This is largely due to the fact that the wealthier and more powerful houses have found their managing agency, shipping, insurance and engineering business so profitable that they have not cared to spend time and trouble over a trade which involves such an immense amount of detail work. The result is that, with one or two exceptions, the business is in the hands of smaller firms. The method adopted is to canvass the bazaars daily by means of Indian brokers and, in the case of some of the more enterprising firms, by European representatives. Indents are collected for a variety of articles, usually on a 2½ per cent. commission basis. These indents are then forwarded either to the firm's London, Liverpool, or Glasgow house, or else to their buying agents in the United Kingdom. The home firm then makes contracts with United Kingdom manufacturers, pays cash for the goods and either draws on its Indian branch or client for the value, or else finances the shipment by direct drafts on the Indian dealer with its own branch or clients as a "case of need." There is, in addition, a large and growing direct trade between home export merchants and bazaar dealers, the only intermediary being an individual agent or travelling representative in India of the shipper. In many cases, United Kingdom export merchants ship direct to the bazaar dealers against their indents without any intermediary at all, the drafts being negotiated by, and the goods consigned through, the medium of the exchange banks. There is, however, considerable risk attaching to this business, except in the case of the strongest dealers, and, therefore, it is not a method to be recommended unless the greatest caution be exercised. Manufacturers desirous of entering the business are advised to place themselves in touch with the home offices or buying agents of the importing houses in Calcutta, Bombay, Karachi, Madras and Rangoon, or they may prefer to correspond direct with the importer on the field in those cases where they are prepared to draw on him. They should be prepared to sample freely, and to follow the desires of the market where reasonably possible. Very small orders will

frequently have to be accepted at first; but, once a trade is established, the aggregate of these should amount to a considerable value. Once a name has been established for his goods, the manufacturer should follow this up by sending a travelling representative to India each cold weather, who would visit all clients, whether European or bazaar firms, would investigate complaints and claims, would show new ranges of specialities and book orders on them, on the understanding that the indents should be passed through the usual importing houses on the usual terms, and who would be able to advise his principal each year of any change in styles, designs, fashions or make-up, and also of financial conditions in the market.

A serious factor of recent years, is the decline in the number and standing of confirming houses in London who deal with this market. Owing to the severe losses incurred owing to the defaults of dealers in the series of crises commencing in 1921, many firms have relinquished the business, while others are only confirming on behalf of a restricted number of the dealers, whom they consider to be trustworthy and of adequate financial standing. For some years manufacturers' travellers have reported that they can only obtain the confirmation in London of a fraction of the orders they receive during their Indian tour. They are therefore confronted with the problem as to whether they should take the risk of drawing on a small dealer, who may default if the market goes against him, or whether they should allow the trade to go past them. The risks attending the direct trade are incalculable and hence it is desirable for United Kingdom manufacturers to exercise the greatest circumspection and care in periods of political unrest and economic depression such as the present.

### CHAPTER III.

#### AN ACCOUNT OF THE FURTHER DEVELOPMENT OF PURCHASES OF GOVERNMENT STORES IN INDIA BY THE INDIAN STORES DEPARTMENT, THE RAILWAY ADMINISTRATIONS AND OTHER DEPARTMENTS OF THE GOVERNMENT OF INDIA.

Since the formation of the Indian Stores Department in 1922, I have traced, year by year, in these reports the gradual movement towards the inauguration of a system of purchase by rupee tenders for delivery in India and have dealt at length with its reactions on the position of United Kingdom suppliers. The new rules for the supply of articles required to be purchased for the public service came into full force from January 1st, 1931. These rules regulate the purchase of stores by all Departments and Officers of the Central Government and of the Provinces other than Governor's Provinces. Similar rules have, however, been introduced by the

Governments of Madras, Assam, Bombay and the Central Provinces and their introduction is at present under consideration by the remaining Provincial Governments.

**The Revised Stores Rules.**—In view of their importance to United Kingdom suppliers, I again append the revised rules in their final and complete form :—

**Preamble.**—The policy of the Government of India is to make their purchases of stores for public service in such a way as to encourage the development of the industries of the country to the utmost possible extent consistent with economy and efficiency, and the following rules, which are applicable to the purchase of stores (other than printing and stationery stores) for the Government of India and for provinces other than Governors' provinces are prescribed in accordance with this policy. These rules supersede all previous orders on the subject.

In order to give effect to the above policy preference in making purchases will be given in the following order :—

**First**, to articles which are produced in India in the form of raw materials, or are manufactured in India from raw materials produced in India, provided that the quality is sufficiently good for the purpose ;

**Secondly**, to articles wholly or partially manufactured in India from imported materials provided that the quality is sufficiently good for the purpose ;

**Thirdly**, to articles of foreign manufacture held in stock in India, provided that they are of suitable type and requisite quality.

**Fourthly**, to articles manufactured abroad which need to be specially imported.

Departments of the Government of India, or officers specially authorised in this behalf, may, when they are satisfied that such a measure is justified, allow a limited degree of preference in respect of price to articles produced or manufactured in India either wholly or in part.

**Rule 1.**—Save as provided in Rules 7 and 8, all articles required to be purchased for the public service shall be purchased on the condition that delivery shall be made in India for payment in rupees in India.

**Rule 2.**—Tenders shall be invited in India, and abroad also when considered desirable, for the supply of all articles which are purchased under Rules 1 to 4, unless the value of the order to be placed is small or sufficient reasons to be recorded exist which indicate that it is not in the public interest to call for tenders. No tender which fails to comply with the condition as to delivery and payment prescribed in Rule 1 shall be accepted.

**Rule 3.**—All articles, whether manufactured in India or abroad, shall be subject to inspection before acceptance, and articles for which specifications and/or tests have been prescribed by competent authority shall be required to conform to such specifications and/or to satisfy the prescribed test or tests, which may be carried out during manufacture or before or after despatch from the suppliers' premises.

**Rule 4.**—Important plant, machinery and iron and steel work shall be obtained only from firms approved by the Chief Controller of Stores, Indian Stores Department, and specified in the lists issued by him from time to time.

**Rule 5.**—In the case of important construction works let out on contract, articles required for the construction of such works may be supplied by the contracting firm provided that when specifications and/or tests have been prescribed for such articles they shall conform to such specifications and/or shall satisfy such tests.



**Rule 6.**—Nothing in these rules shall be deemed to prohibit the purchase of articles by one Department or Railway from another.

**Rule 7.**—The articles enumerated in Annexure A, or any other articles of a special or unusual character, may, when suitable and economical purchases cannot be made in accordance with the preceding rules, be obtained without reference to those rules subject to the following conditions :—

(a) Where the value of the purchase exceeds Rs.5,000 the purchasing officer shall place on record his reasons for not effecting the purchase in accordance with the preceding rules.

(b) The purchasing officer may at his discretion either obtain the article that he requires by indent on the India Store Department, London, or purchase it direct from manufacturers or dealers abroad. Where resort is had to direct purchase from manufacturers or dealers abroad, tenders shall, whenever practicable, be first obtained.

(c) When articles are purchased abroad under this rule through the agency of the India Store Department, London, payment shall be made by that Department. In other cases, payment shall be made—

(i) in countries other than Great Britain and Northern Ireland direct to the suppliers by the purchasing officer ;

(ii) In Great Britain and Northern Ireland, through the High Commissioner for India.

**Rule 8.**—Lethal weapons, munitions of war, technical apparatus and equipment, and any other stores required by the Naval, Military or Air Forces of the Crown in India for which drawings, patterns, specifications or designs have been issued, prescribed or announced by the Admiralty, War Office, Air Ministry, Government of India, or Commander-in-Chief in India, shall be obtained by indent on the India Store Department, London, unless they are available in India in accordance with the prescribed drawing, pattern, specification or design. Any departure from this rule requires sanction of the Government of India, and whenever an expenditure exceeding Rs.20,000 is incurred in any individual case to which such sanction has been accorded it shall be reported to the Secretary of State for India in Council.

#### **Annexure A (Vide Rule 7).**

- (i) Seeds.
- (ii) Cinchona bark.
- (iii) Articles for experimental purposes.
- (iv) China, glass, cutlery, plate, crockery and perishable fabrics, including linen for residences which are furnished by Government.
- (v) Copper, zinc and other non-ferrous metals produced in Australia or America.
- (vi) Timber produced in Australia or North America.
- (vii) Such articles as the Superintendents of Vaccine Depots may require for the preparation of vaccine lymph.
- (viii) Chemicals and scientific instruments.
- (ix) Preserved and tinned foodstuffs.
- (x) Articles required for Viceregal residences.

**The Position of United Kingdom Suppliers of Stores and Railway Plant.**—During the past year the principal United Kingdom suppliers of stores which are purchased by the Indian Stores Department and by the Indian Railways, Army Authorities and other purchasing departments of the Government of India, have proceeded with the development of their local organisation in

order to fall into line with the new conditions. Leading United Kingdom manufacturers of machinery and engineering stores have, for some time, possessed an efficient local organisation, whether in the hands of branches or of technical agents. Many suppliers of rolling-stock and fittings, bridge work, special steels and permanent way material have recently either formed local limited liability companies or taken special steps to be represented by a competent and active firm of merchants operating in the country. It is to be hoped that the remaining United Kingdom firms of Government Contractors, who have hitherto contented themselves with maintaining touch with the India Store Department, London, and the London Head Offices and consulting engineers of the company-operated lines, will lose no time in reaching a decision on this point. If they would, as a preliminary measure, send out a Director or other senior officer to survey the position and consult with the Officers of the Indian Stores Department and of the Railway Administration, they would quickly realise the need for prompt and effective action.

The following considerations may be of value to firms who are in doubt as to the type of organisation they require :—

(1) In many cases manufacturers may find it advantageous to register a limited liability company in India with rupee capital and in some instances it would be desirable to have a proportion of Indian directors on the board. The principal advantages may be summarised as follows :—

(a) It has been laid down as the settled policy of the Government of India “ that no concession or bounty will be given to any firms in regard to industries in India unless such firms have a rupee capital, unless such firms have a proportion, at any rate, of Indian directors, and unless such firms allow facilities for Indian apprentices to be trained in their works.”

(b) The preamble of the revised stores rules already quoted lays down that preference in making purchases will be given to articles wholly or partially manufactured in India from imported materials over articles not manufactured in India, provided that the quality is sufficiently good for the purpose. According to this rule it would be possible for the United Kingdom manufacturer to carry out a certain portion of the manufacture of his products in India and—if he were registered as an Indian company—he would be justified in claiming preferential treatment. I am convinced that United Kingdom manufacturers who have registered in India and have Indian directors will be in a much stronger position in dealing with Government purchasing departments than mere branches or agencies of overseas firms.

(c) So far as general business is concerned, the fact that a company was registered in India or in the United Kingdom has hitherto had little influence on its sales, but with the increase of

political and racial feeling during the past few years, one feels that in the future there may be advantages in having well-known Indian names on the Board. The rapid Indianisation of all the services lends point to this.

(2) The preamble to the revised stores rules further states that preference will be given to articles held in stock in India over those which would need to be specially imported, provided that they are of suitable type and requisite quality. This rule will, in practice, compel United Kingdom manufacturers and suppliers of stores in regular demand by the Government of India to maintain stocks in India in the hands of their branches or agents, otherwise they will run the risk of losing trade to their competitors, both United Kingdom and foreign, who hold stocks in the country. It is also important that the local branches and agencies of United Kingdom firms who hold stocks in India should apply to the Chief Controller of Stores, Indian Stores Department, Delhi/Simla, and to the Stores Controllers of Indian State Railways to be noted on their standard lists of approved contractors. They should at the same time furnish a complete list of the articles usually stocked and the amount of stock which they normally carry.

It is extremely likely that one result of this extended purchasing by Government from stocks in India will be to introduce increased foreign competition. Our foreign rivals are, in some cases, strongly entrenched in this market, and several cases have come to my notice where local firms are stocking American goods, solely because they are granted more liberal financial terms by American makers, who are prepared to grant two or three months or even longer credit on the stocks supplied. A considerable number of the larger merchant houses in India are prepared to pay cash in London for their stocks, but it should be remembered that some of the newer and lesser firms, who are equally reliable and frequently more energetic agents, cannot afford to lock up their capital in this way; in these instances a three to six months' bill would meet the case. I appeal to many United Kingdom manufacturers, who expect their agents not only to purchase stocks outright by cash in London, but also to meet the heavy costs of travelling and advertising, to take a reasonable view of local conditions. The number of first-class agents in India with ability, energy and intimate knowledge of the requirements of Government is limited. Foreign manufacturers have realised this fact and have, in many cases, appointed them as agents. Unless many United Kingdom makers are prepared to be more generous in their agency terms and to take a greater interest in the development of their sales in India, they may find that the most efficient local representatives are already fully engaged and that they are obliged to appoint second-rate firms with the result that their interests are bound to suffer.

(3) Now the rupee tender system is in force, the branch, representative or agent of the United Kingdom manufacturer is dealing

with Government departments in the relationship of principal to principal. Payment for stores and material supplied is made in India by Government to the branch representative or agent, as the case may be, with whom the contract was concluded. It is therefore most important that United Kingdom manufacturers should be represented by an organisation in India over which they have control or upon which they can implicitly rely. Otherwise, cases might arise, as I believe they have already arisen in other markets in the Empire, where agents received considerable sums from Government Departments in payment of plant and stores supplied which they failed to remit to their principals in the United Kingdom and, in the meantime, became insolvent. This is an aspect of the effects of the rupee tender system which has not, I think, so far been sufficiently appreciated but which would seem to be important.

(4) It will have been noted from the preamble of the revised rules that "the policy of the Government of India is to make their purchases of stores for the public service in such a way as to encourage the development of the industries of the country to the utmost possible extent consistent with economy and efficiency." This policy is being carried out most zealously by the Officers of the Indian Stores Department and by the Railway Board, who appear to be determined to purchase their requirements from Indian industries if possible and, failing that, from the most economical source of supply irrespective of country of origin. United Kingdom manufacturers must realise that, apart from the results of their own efforts, they will have no advantages in competition with foreign interests and, in the case of competition with Indian industries, the scales will be heavily weighted against them. Their success will therefore entirely depend upon their own efforts and the suitability of the Indian organisation which they may set up. The ideal form of representation for the large firms of manufacturers of rolling-stock, steelwork, permanent-way material, and other important items of railway stores, would appear to be a locally registered limited liability company, holding stocks of those stores or parts which are in constant demand, assembling its products in India where such a course conduces to efficiency or economy, and manufacturing locally those portions of its products which can be manufactured more advantageously in this country.

**The Future of the Indian Stores Department.**—At the time of writing (August, 1931) the Indian Stores Department in common with all other Departments of the Government of India, is being subjected to a close examination by a special sub-committee of the Indian Retrenchment Committee. Rumours are very general that, in view of the urgent need for public economy and of the fact that the Department showed a loss of over Rs.9 lakhs in 1930/31, its abolition will be decided upon as a measure of retrenchment. A definite decision is not likely to be made for two

or three months, but I firmly believe that, so far from being abolished, the Department will emerge from the present crisis with extended scope. The Department has received steady support from the Indian Legislature, who are largely responsible for its creation, in pursuance of their policy of transferring the control of stores purchases from London to India, which has now been accomplished, and of using the Department as a strong lever for the stimulus of Indian industries. During recent months it has taken over the purchase of additional valuable categories of railway stores such as tyres and axles, vacuum brake gear, certain standardised bridgework, motor vehicles, &c., &c., and already purchases all State railway requirements of such important items as textiles, oils and paints, structural iron and steel, electrical machinery and fittings and cables. Its services are also being utilised to an increasing extent by Provincial Governments, Army Headquarters, the Posts and Telegraph Administration, &c., &c. In these circumstances, it would appear likely that the Government of India will decide that, in order to place the Department on a self-supporting basis, its turnover should be increased and such economies as can be effected shall be made among the other purchasing authorities which are still attached to railways, the Army organisation and other departments.

**The Indian Stores Department in 1930-31.**—I am indebted to Mr. J. S. Pitkeathly, C.M.G., C.I.E., C.V.O., C.B.E., Chief Controller of Stores, for the following information, which has been abstracted from his administration report for the year. This and preceding reports may be seen at the Department of Overseas Trade and should be read by all firms interested in the supply of stores to the Government of India. The Chief Controller reviews the progress made during the year in the following terms :—

“ The turnover for the year under review fell short of that attained during the year 1929-30, as the figure of work done for that year included a substantial volume of business carried over from the preceding year. Notwithstanding a large drop in prices, the value of work done during 1930-31, in terms of fees earned, exceeded, however, the average of the two preceding years by Rs.46,851. Judged by the volume of work which passed through the Department, there was a substantially greater increase during the year under review. A point to be borne in mind in this connection is the fact that the fees are calculated on value both in respect of the stores purchased and the major portion of those inspected, and the more, therefore, the Department fulfils one of the primary objects of its existence, viz., the economical purchase of stores for the public service, the less it earns in fees.

“ **Utilisation of the services of the Indian Stores Department by Government Departments in India.**—It was mentioned in paragraph 2 of the report for the previous year that orders were issued by the Department of Industries and Labour during the year 1929-30 to all authorities under their direct control that the purchase of all classes of stores, handled by the Indian Stores Department, should, in future, be entrusted invariably to that Department. Further progress was made in this direction during 1930-31 and similar orders were issued by the Department of Industries and Labour to all minor Local Administrations, and by the Home, Commerce and Foreign and Political

Departments to the authorities under their direct control. As a result of these orders the value of the purchases on behalf of those authorities exceeded the corresponding figure of the preceding year by over a lakh of rupees, in spite of a reduction of about Rs.3 lakhs in demands of a non-recurring nature from the Andamans Commission and of about Rs.1½ lakhs from the Civil Aviation Department. The question of the issue of similar orders to other central departments is under the consideration of the Government of India.

**“ Utilisation of the services of the Indian Stores Department by authorities outside India.**—The services of the Department were again utilised by the Resident Engineer, Royal Airship Base, Karachi, for the purchase and inspection of stores. Tents of the value of over Rs.9,000 were inspected on behalf of the Palestine Government and about 3,000 tons of cast iron pipes and specials were inspected on behalf of the Singapore Municipality.

“ The facilities offered by the Inspection Branch of the Department were brought to the notice of the Governments of South Africa, Ceylon and Malaya through the Agents of the Government of India in those countries. Orders have been issued by the Government of Ceylon to the Railway Department and the Controller of Revenue to publish in the Indian Trade Journal all tender notices amounting to Rs.5,000 or over in respect of stores obtainable in India. The Commissioner of Police, Federated Malay States, has also offered to publish his invitations to tender in the Indian Trade Journal and negotiations are in progress in that direction.

**“ Activities of the Purchase Branch.**—The total value of orders placed by the various sections of the Purchase Branch during the year amounted to Rs.3,76,82,696 as compared with Rs.4,29,25,701 during the preceding year. The decline of 12 per cent. (amounting to Rs.52,43,005) in the value of purchases is to a large extent attributed to the general fall in prices of commodities, which in several instances far exceeded this percentage. This is evidenced by the fact that the number of indents received during the year for compliance actually increased from 17,058 to 23,233 and the number of contracts placed from 29,767 to 33,311. The number of items dealt with declined from 68,957 to 67,224, but this reduction occurred entirely in the items dealt with in the provincial purchase circles. As the value of orders placed by these organisations actually exceeded the previous record, in spite of the fall in prices, the reduction in the number of items merely represented a decline in petty demands which indenting departments had been advised to handle direct. The number of items dealt with in the Headquarters office, which include important purchases, rose from 24,509 to 25,091.

**“ Clientele of the Department.**—There was a further addition during the year to the list of authorities utilising the services of the Department for the purchase of supplies required by them. Thirty-seven new authorities entrusted their purchases to the Department for the first time since its constitution. The value of orders placed on their behalf amounted to Rs.4,01,227 distributed as below :—

	No.	Amount. Rs.
(1) Central Departments (Civil, Military and Railways) ... ..	12	3,16,222
(2) Provincial Governments ... ..	18	58,814
(3) Indian States and Quasi-Public Bodies ...	7	26,191
<b>Total</b> ... ..	<b>37</b>	<b>4,01,227</b>

The Departments which chiefly contributed to this amount were :—

	Rs.
(1) The Chief Inspector of Lighthouses ... ..	2,13,956
(2) The Imperial Council of Agricultural Research ... ..	70,052
(3) The Department of Industries, Madras ... ..	27,277
(4) Gwalior State ... ..	18,438

**“ Purchases on behalf of the Civil Departments of the Central Government.**—Notwithstanding the existence of the causes which adversely affected the business generally, the demands from Central civil departments increased by Rs.4,05,929. This is attributable to the orders which have been issued to certain Departments of the Government of India regarding the compulsory purchase of stores, which are referred to in paragraph 2.

**“ Purchases on behalf of the Military Department.**—In pursuance of the recommendations of the Public Accounts Committee on the subject of entrusting the purchase of requirements of the departments of the Central Government to the Indian Stores Department in an increasing degree, a Purchase Co-ordinating Committee was formed during the year, comprising representatives of the Master General of Ordnance Branch and the Indian Stores Department, to deal with the question in relation to the requirements of the Army. The only important decision reached by this Committee so far is that the purchase of such stores for the Army as were previously obtained by indent on the Director-General, India Store Department, London, and which will in future be purchased in India, under the provision of the revised Stores Rules, would be entrusted to the Indian Stores Department.

“ There was a heavy diminution in the demands from the Master General of Ordnance Branch (Rs.11,88,427) and the Military Engineer Services (Rs.7,10,043) which was partly counterbalanced by increases in the indents received from the Royal Indian Marine (Rs.3,79,697) and the Quartermaster General's Branch (Rs.1,55,830). The chief reasons for the decline were a further reduction in the demands for clothing equipment for the army, withdrawal from the Indian Stores Department of the purchase of fuel oil, reduction in the demands for steel sections from the Military Engineer Services, and a general drop in prices.

**“ Purchases on behalf of Railway Administrations.**—Two meetings were held with the Railway Department (Railway Board) during the year to consider the question of making further additions to the list of requirements of the Railway Administrations the purchase of which has been made over to the Indian Stores Department. As a result, substantial additions were made to the list, the more important of which were :—

1. Vessels, sea-going, and river-craft.
2. Vacuum brake fittings (including rubber fittings).
3. Motor vehicles and accessories.
4. Sheets, asbestos cement.
5. Iron, pig.
6. Oil, kerosene and gas making.
7. Petrol.
8. Electric generating plant and equipment.
9. Fans, railway carriage.
10. Train lighting equipment.
11. Primary cells.
12. Oxygen.

“ Owing to the existence of unexpired railway contracts for several of these items, the effect of these additions on the turnover of the Department will not be felt until next year.

“ Due to a fall in prices and curtailment of demands, on account of financial stringency, the value of orders placed on behalf of Railway Administrations (including Company Railways) declined from Rs.1,50,46,429 to Rs.1,27,97,842. The purchases made for the North Western Railway, the Burma Railways, the Madras and Southern Mahratta Railway, the South Indian Railway and the Central Publicity Bureau increased by Rs.11,55,000, but those for the East Indian Railway, the Eastern Bengal Railway, the Great Indian Peninsula Railway, the Bombay, Baroda and Central India Railway, the Assam Bengal Railway, the Bengal Bagpur Railway, the Jodhpur Railway, and the Mysore Railways declined by Rs.34,04,000. As the total purchases made for Railway





## ENGINEERING AND ALLIED STORES.

	Amount. Rs.
Oil, kerosene	19,09,500
Steel sections, sheets, flats and rounds	15,44,000
Cement	15,05,000
Electric lamps, fans and fittings	14,76,000
Oil, lubricating	13,43,000
Oil fuel	11,73,000
Cables, electric	10,77,000
Road dressing material, asphalte, road tar, etc.	10,54,000
Electric generating and converting plant and prime movers	8,91,000
Oil, axle	8,81,000
Wire, copper	6,47,000
Steamers and other seagoing craft	5,99,000
Sluice gates	5,44,500
Paints and dry pigments	5,24,500
Pipes and fittings, galvanised iron and mild steel	5,16,500
Oil, castor	5,12,000
Motor vehicles, trucks and spare parts	5,10,500
Steel structures	4,73,000
Pipes, and specials, cast iron	4,61,000
Wire, galvanised iron, plain and barbed	4,54,000
Oil, linseed, raw and double-boiled	4,04,500
Pumping plant and equipment	3,52,000
Tanks, pressed steel and staging	3,09,500
Asbestos cement sheets	3,00,000
Petrol	2,80,000
Enamels and varnishes	2,52,000

**“ Encouragement of Indian Industries and Local Purchases.—**

Efforts were continued during the year to assist manufacturers in India in improving the quality of their products by means of technical advice and suggestions in the course of purchase, inspection and testing of materials, and every endeavour was made to substitute articles of Indian manufacture for those imported from abroad. A few noticeable instances are given in the following paragraphs.

**THE TEXTILE INDUSTRY.**

“ There has been a marked increase during the year in the number of mills spinning finer counts of yarn and weaving finer qualities of cloth and it will be possible in future to obtain fine longcloth, muslin, etc., from local manufacturers instead of importing the same from abroad. A leading firm of textile manufacturers in Bombay have evolved a new type of bleached absorbent gauze for surgical and medical purposes to take the place of gauze which was previously imported.

“ The following textile manufactures received special attention during the year :—

“ *Jean khaki for bandoliers.*—The question of preparing a suitable specification for khaki jean for making up into bandoliers was taken up in the year 1923, at the instance of the Army authorities. At the time, khaki jean to an existing Army specification was supplied by two firms only, one in Bombay and the other in Cawnpore. The former firm supplied jean which satisfied the specification, but when made up into bandoliers the finished articles failed to pass the prescribed tests. The material supplied by the latter firm did not satisfy the specification but the finished bandoliers satisfactorily stood the tests. From a close scrutiny of the existing specification, it was discovered that it did not contain all the particulars necessary to show manufacturers the precise class and nature of the material required. A draft specification

embodying all the essential particulars was prepared and submitted to the Army Department and has since been accepted by them, with a few minor alterations. No difficulty is now anticipated in the manufacture in India of a material suitable in all respects for making the article required and it will no longer be necessary to restrict the orders to one or two firms who held a monopoly for the supply in the past.

*" Cloth for the manufacture of haversacks.*—The cloth for the manufacture of haversacks for the Army has in the past been obtained through the Director-General, India Store Department, London. A sample of cotton canvas khaki, received from a mill in India was forwarded to the Inspector of Clothing Stores, Shahjahanpur. The quality, when water-proofed, has been reported on as suitable for the purpose by the Army Inspectorate and the Director of Contracts had been asked to place his future demands with the Department for purchase in India.

*" Drill, cotton, bleached.*—At the suggestion of the Department, the Royal Indian Marine authorities have agreed to substitute bleached drill of local manufacture for American pepper drill.

#### THE ENGINEERING INDUSTRY.

" There has been a marked improvement since the constitution of the Department in the capacity and equipment of firms engaged in the manufacture of wagons, bridges and steel structures. Although ten years ago there were firms building wagons and fabricating steel bridges, work of the magnitude and quality now common could not have been undertaken at that time and many components were obtained in the finished state from abroad. The continual pressure of the Inspectorates for a higher standard of workmanship has necessitated improvement in method and the use of additional plant, and these in turn have resulted in an increased capacity for dealing with difficult or more complicated types of work. Every possible encouragement has been given to these industries by the Department by entrusting to local firms its own demands for important bridges and structural work not undertaken by them before, *e.g.*, suspension bridges, aeroplane hangars, steam launches, etc., and by inducing other purchasing organisations to divert such orders to manufacturers in India.

" The Bally Bridge for the Calcutta Chord Railway, is a striking example of the magnitude of steel bridge work which can now be undertaken successfully in India. The bridge, which consists of seven spans (excluding the approach spans) of 350 ft. each, aggregating 17,000 tons in weight, including heavy cast steel bearings, has been entirely fabricated in India under the supervision of the Calcutta Inspection Circle of the Department.

*" Couplers, electric.*—A fairly large contract for Kent type electric couplers was placed in India by a Railway Administration with a local firm in Bombay. As the patent had run its course, the firm undertook manufacture of the article on a production basis. Every assistance was given to the firm by the local Inspectorate, especially with regard to improvement in the finished aluminium castings and the method of assembling the copper contacts to obtain high efficiency. A high-class coupler was produced which satisfactorily withstood severe overload tests. The results obtained are most encouraging, as this is the first time a firm in India has attempted to manufacture this type of coupler.

*" Bodies for M. T. Vehicles*—The Army Authorities in India were asked to consider the possibilities of manufacture in the country of bodies for M. T. vehicles, and it was suggested that, if detailed drawings were available and firms in India were given an opportunity to quote, all requirements could probably be met in India without sacrificing economy or quality. The indenting department agreed to order thirty-six bodies from a manufacturer in India as an experimental measure.

*" Other miscellaneous articles.*—Special interest was also taken during the year in the manufacture or substitution for imported materials of several other

articles, among which may be mentioned pugrees, cooking ranges, resin, glassware and enamelware, plywood boards, bituminous solution, metal polish, and soap.

**“ Important Purchases of Articles of Indian Manufacture.—**The following is a list of the more important contracts placed during the year for products which were wholly or partially manufactured in India. Particulars of other Indian articles purchased may be obtained on application to the Department of Overseas Trade.

#### TEXTILE MATERIALS.

	Amount. Rs.
Waste cotton, white and coloured ... ..	17,33,000
Drill khaki, white, coloured and grey ... ..	11,80,000
Greatcoat cloth, serges and broad cloth ... ..	10,56,000
Yarn, cotton and woollen ... ..	4,42,500
Socks and stockings ... ..	3,31,000
Tents and tent components ... ..	2,79,000
Pugree cloth, muslin, nainsook, calico, etc. ... ..	2,50,000

#### ENGINEERING AND ALLIED STORES.

Cement ... ..	14,66,500
Oil, axle, all weather ... ..	7,75,500
Road tar and other road dressing material ... ..	6,80,000
Steel sections and steel sheets ... ..	6,76,000
Oil, castor ... ..	5,12,000
Wire, copper, bare ... ..	4,46,000
Oil, linseed, raw and double boiled ... ..	4,04,000
Pipes and specials, C.I. ... ..	4,00,000
Steel structures ... ..	3,90,000
Oil, kerosene ... ..	3,61,000
Paints and dry pigments ... ..	3,41,500
Petrol ... ..	2,80,000
Tanks, pressed steel ... ..	2,63,500
Oil, gas making ... ..	2,58,000

**“ Scrutiny of Indents on the India Store Department, London.—**As a result of the introduction of the Revised Stores Rules, there was a further reduction during the year in the number and value of indents on the India Store Department, London, received for scrutiny and increase in the percentage of items challenged in those indents. One thousand one hundred and sixty-five indents of the estimated value of Rs.2,83,80,217 were examined during the year as against 1,414 indents of the aggregate value of Rs.3,16,06,941 during the year 1929-30. Items aggregating Rs.14,82,168 or 5.2 per cent. of the total value of the indents examined (as against 5.7 per cent. during the preceding year) were challenged and the results communicated to the indenting authorities.”

**Purchases of Railway Materials.—**The most recently published report on Indian Railways for 1929/30 states that the value of stores purchased by all Indian Railways increased from Rs.29.63 crores in 1928/29 to Rs.30.06 crores in 1929/30, the principal increase being under rolling stock (Rs.366 lakhs). The value of indigenous materials purchased rose from Rs.12.81 crores to Rs.13.83 crores while the value of imported materials declined by Rs.59 lakhs. The following table records the amounts spent under each main heading :—

	Value of imported materials.			Value of indigenous materials	Total purchases 1929-30	Total purchases 1928-29
	Purchased direct.	Purchased through agents in India.	Total imported materials			
	Rs. crores.	Rs. crores.	Rs. crores.			
Rolling-stock ... ..	6.05	1.23	7.28	1.63	8.91	5.25
Tools and stores ... ..	0.55	3.52	4.07	3.07	7.14	6.53
Permanent way ... ..	0.47	0.19	0.66	4.89	5.55	7.00
Electric plant ... ..	1.22	0.90	2.12	0.04	2.16	3.64
Building and station materials and fencing ... ..	0.11	0.29	0.40	0.17	0.57	0.72
Bridgework ... ..	0.28	0.16	0.44	0.09	0.53	0.96
Workshop machinery ... ..	0.40	0.26	0.66	—	0.66	0.71
Engineers' plant ... ..	0.23	0.16	0.39	0.05	0.44	0.39
Other materials*... ..	—	0.21	0.21	3.89	4.10	4.43
Total ... ..	9.31	6.92	16.23	13.83	30.06	29.63

\*Other materials consist of coal and coke, stone, bricks, lime and ballast, etc.

*Purchases through the Indian Stores Department.*—The extent to which railways have availed themselves of the services of the Indian Stores Department during the last two years is shown in the next table :—

	(In thousands of rupees).	
	1928-29	1929-30
1. Textiles ... ..	20,45	41,17
2. Cement ... ..	5,73	16,53
3. Creosote ... ..	25	—
4. Lubricating and other oils and greases ... ..	46,27	57,44
5. Paints and varnishes... ..	11,30	17,35
6. Electric fans, lamps and other electrical stores ... ..	6,03	8,69
7. Plant and machinery ... ..	6,18	1
8. Water supply materials ... ..	2,63	2,11
9. Structural steelwork including bridge girders ... ..	96	48
10. Soaps ... ..	56	53
11. Hardware ... ..	1,39	2,81
12. Miscellaneous ... ..	2,71	3,33
Total ... ..	1,03,96	1,50,45

*Expenditure on the Fabrication and Manufacture of Stores in India.*—The statement, already given, showing the value of the stores purchased under the principal headings does not take into account the very large expenditure incurred by the Railways themselves on fabrication and manufacture, nor the cost of large engineering works carried out *in situ*. The following statement, however, gives the approximate expenditure on the fabrication of purchased stores, separate figures being given in the case of stores imported and stores of Indian manufacture or of indigenous origin.

These figures are exclusive of the value of the stores used in the fabrication and manufacture or in the engineering works :—

	Cost of fabrication and manufacture of stores imported direct or of imported stores purchased in India. (In thousands of rupees).	Cost of fabrication and manufacture of stores of Indian manufacture or of indigenous origin. (In thousands of rupees).
1. Construction of locomotives ... ..	19,22	4,25
2. Construction of boilers ... ..	3,51	55
3. Construction of coaching stock including underframes ... ..	64,84	55,38
4. Construction of goods stock including underframes ... ..	41,84	16,52
5. Construction of spare parts of locomotives ... ..	37,55	15,19
6. Construction of spare parts of coaching and goods stock ... ..	27,65	19,33
7. Construction of other stores ... ..	90,36	26,80
8. Work done for other Departments, <i>i.e.</i> , departments other than that supervising the workshops ... ..	1,05,34	38,30
9. Engineer's plant ... ..	11,32	87
10. Permanent way ... ..	9,19	27,12
11. Bridge work ... ..	6,42	61
12. Structural or other engineering works ... ..	13,16	9,61
Total ... ..	4,30,40	2,14,53

The cost of structural and other engineering works carried out *in situ* was :—

	(In thousands of rupees)
Bridge work ... ..	1,45,93
Structural and other engineering works ... ..	4,49,98
Total ... ..	5,95,91

*Standardisation of Locomotives.*—The Railway report states :—

“ At the close of the year under review, 402 locomotives, constructed to the Indian Railway Standard designs, had been received and placed in service and a further 220 standard locomotives were on order. The locomotives now in service represent thirteen different types (seven 5 ft. 6 in. gauge, four 3 ft. 3½ in. gauge and two 2 ft. 6 in. gauge) and include 5 ft. 6 in. gauge shunting locomotives with 17 and 22½ ton axle-loads (XF and XG) and a 3 ft. 3½ in. gauge branch line locomotive of 8 ton axle-load (YF) which made their first appearance in India during the year.

“ The building of three further types, comprising a 5 ft. 6 in. gauge 4-cylinder express passenger locomotive (XS) and 5 ft. 6 in. and 3 ft. 3½ in. tank locomotives for short branch line passenger traffic (XT and YT), was well advanced at the end of the year and their arrival in 1930-31 will mark the completion of the detailed standard designs for fourteen out of the sixteen standard types hitherto contemplated by the Locomotive Standards Committee for broad and metre gauge lines.

“ Four experimental 4-cylinder passenger locomotives of the type referred to above are under construction. Among the features of special interest on these locomotives, the provision of the Caprotti poppet valve gear on two locomotives and the Lentz rotary cam poppet valve gear on the remaining

two, also the positioning of the cranks at 135°, so as to give eight impulses per revolution, on one locomotive fitted with each type of valve gear may be mentioned. On their arrival in this country these experimental locomotives will undergo extensive comparative trials to determine both the merits of the two types of valve gear and the general performance of these locomotives relative to the standard heavy 2-cylinder passenger locomotive (XC).

"The Locomotive Standards Committee met once during the year and dealt with a large number of modifications considered desirable as a result of further experience gained with locomotives built to the standard designs."

The great reduction in the replacement programme of Indian Railways owing to the need for drastic economy will be realised when I state that the 1932/33 programme will probably include not more than 33 locomotives of all types and 167 locomotives boilers and super-heating conversion units.

*Standardisation of Rolling Stock.*—The Railway report states :—

"Prior to this year no vehicles, other than the original sample vehicles, had been built to the Indian Railway Standard designs. During the year the following Indian Railway Standard vehicles (expressed in terms of 4-wheeled units) were constructed, all being built in India with the exception of 63 broad gauge and 18 metre gauge wagon units.

		Carriage under- frames. Units.	Wagons. Units.
5 ft. 6 in. gauge	... ..	741	1,806
3 ft. 3½ in. gauge	... ..	268	1,420

"The carriage underframes comprised three standard types, the whole being built at the East Indian Railway's works at Tatanagar. The wagons were of six broad and eight metre gauge standard types.

"During the year orders were placed for the following additional Indian Railway Standard vehicles (expressed in terms of 4-wheeled units), all orders being placed for construction in India.

		Carriage under- frames. Units.	Wagons. Units.
5 ft. 6 in. gauge	... ..	335	1,091
3 ft. 3½ in. gauge	... ..	400	1,103

Sample broad gauge 64, 80, and 135 ton well wagons, steel motor vans, and metre gauge 72 ton well wagons were received during the year, and following sample vehicles were under construction in England at the close of the year :—

5 ft. 6 in. gauge. Short bogie carriage under- frames	3 ft. 3½ in. gauge. Short bogie carriage underframe 4-wheeled carriage un- derframes Modified 4 - wheeled covered jute wagon Modified bogie covered wagon	2 ft. 6 in. gauge. Carriage underframe six types of wagons and brake van
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"It was decided during the year that the building of sample vehicles and the preparation of detailed standard drawings should in future be undertaken in India, and in pursuance of this policy detailed drawings of high capacity

metre gauge petrol and oil tank wagons were completed and sample orders placed. Detailed drawings of the Indian Railway Standard automatic vacuum brake fittings were also completed and their issue early next year is anticipated."

To all intents and purposes, with the exception of a few special types, the requirements of the Indian Railways as regards underframes are produced at the railway underframe works at Tatana-gar and as regards wagons, in the works of the Indian Standard Wagon Co., Ltd., and of Messrs. Jessop and Co., Ltd.

**Purchase of Army Requirements.**—The position remains largely unchanged. The bulk of the imported stores contracted for in India are purchased by the Director of Contracts at Army Headquarters, Delhi/Simla. Textile stores are purchased by the Indian Stores Department, which also deals with the engineering requirements of the Engineer-in-Chief's branch of Army Headquarters. The Deputy Director-General (Stores) of the Indian Medical Service purchases in India considerable quantities of drugs, medicines, dressings and surgical instruments and apparatus. Medical stores depots are maintained at Calcutta, Bombay, Madras, Lahore and Rangoon. Practically all other imported stores on Army account are obtained from the Director-General of the India Store Department, London.

Reference should be made to the very large number of six-wheeled motor transport lorries, both 30 cwt. and 3-ton, which have been purchased during the last few years by the Motor Transport Section of the Quartermaster-General's Branch, Army Headquarters, Delhi/Simla. The general programme of mechanisation is now almost completed, but the renewals each year will provide a valuable and steady business for the United Kingdom motor manufacturers concerned. The valuable turnover in spare parts is being handled by the Indian Stores Department under the rupee tender system and consequently it has become imperative for United Kingdom suppliers to maintain spare parts depots with adequate stocks, from which immediate delivery can be given. It is satisfactory to note that the principal United Kingdom manufacturers, who are concerned, have already taken action on these lines.

**Department of Posts and Telegraphs.**—The Director-General of Posts and Telegraphs in his Annual Report for 1929/30 states that almost all his purchases of stores in India, which steadily increased during the year, were made through the agency of the Indian Stores Department. He summarises his stores transactions for telegraph stores as follows:—

				1928-29	1929-30
				Rs.	Rs.
Opening balance	...	...	...	83,18,275	73,78,804
Receipts	...	...	...	79,39,806	57,54,741
Issues	...	...	...	88,79,277	74,23,950
Closing balance	...	...	...	73,78,804	57,09,595

Special efforts to reduce the value of stocks to a minimum have been continued. During the year the stock balance was reduced by Rs.16,69,209 and the balance now represents about six months' requirements, apart from the stores to the value of Rs.20,52,000 maintained as a reserve for Military mobilisation requirements.

**The Indian Canteen Contractors' Syndicate, Ltd.**—I have traced, in previous reports, the origin and formation of the Syndicate. The following note, specially contributed by Mr. A. C. Murray, the Managing Director, will be read with interest by United Kingdom purveyors of provisions and canteen stores :—

“ The second year of existence of the Canteen Contractors' Syndicate Ltd., which is the approved co-operative organisation for supplies to Army Canteens in India, showed progressive increase of sales to its Contractor-Members. A dividend of 4 per cent. resulted on their paid-up capital of Rs.11 lakhs. The current year has shown a further steady increase of turnover amounting to 28 per cent. This has been achieved largely by extending the range of supplies offered, so that the number of lines originally stocked is now almost doubled.

“ Of the nineteen countries from which the Syndicate procures its imported lines, Great Britain receives the largest measure of business, comprising provisions principally, soaps, polishes, stationery and sundries. In glassware, crockery and hollow-ware, for all of which there is heavy demand, the cheaper prices offered by the Continent put British goods out of the market. Indian products, comprising jams, tinned butters, pickles, vinegar condiments, pipeclays, polishes, brushware, cooking oils, dried fruits, etc., receive their full share of trade.

“ The Syndicate by regular shipments, and by encouraging its members to order only quantities for prompt consumption, has undoubtedly established a standard of freshness for its goods which, in a climate like India, commends them to its soldier-consumers. Its four import depots at Karachi, Bombay, Calcutta and Madras also make for quickness of supply.

“ Long rail journeys, however, extending sometimes to three weeks, in iron trucks, under a tropical sun, take heavy toll of tinned goods especially. Moreover, the Army Authorities are more and more vigilant in this matter, and foodstuffs showing the slightest suspicion of “ puffing ” are invariably condemned. Packing firms, therefore, are ill-advised who count on cutting their costs mainly at the expense of the tinning.

“ The Indian trader knows those brands which “ stand up to the climate,” and gives them his support. The C. C. Syndicate goes a step further and where it is offered a line moderate in price, of good quality and packed to withstand Indian conditions, it adds it to the list of the ‘ C.C.S. Own Brands ’ which it markets under its own special label. This list is an increasing one, covering mainly such lines as tinned cheese, fish of various kinds, fruits, etc., on which the Syndicate feels it safe to set its seal.

“ During July, 1931, the Syndicate organised a first modest Trades Exhibition held in Simla. Unfortunately, owing to lack of space, a very large number of applications for stall accommodation from all parts of the world, had to be refused. Some 30 leading firms of suppliers, however, managed to get accommodated and the opinion was that similar Exhibitions might be held annually to the advantage of all concerned.

“ The occasion was primarily intended to give manufacturers an opportunity to display their latest wares to the Syndicate's Contractor-Members, then in session in Simla from all parts of India. Business, however, was not confined only to these, and other traders were made equally welcome ; as also the general public, who were undoubtedly enlightened by what they saw, as to



the possibilities of the modern regimental canteen as an up-to-date shopping centre.

" Any enquiries should be addressed to the Managing Director, The Canteen Contractors' Syndicate Ltd., P. O. Box 113, Karachi, India."

## CHAPTER IV.

### REVIEW OF THE ACTIVITIES OF THE INDIAN TARIFF BOARD DURING THE YEAR.

#### INQUIRY INTO THE QUESTION OF AFFORDING ADDITIONAL PROTECTION TO GALVANISED SHEETS.

This inquiry was referred to the Tariff Board in the Government of India, Commerce Department's Resolution No. 260-T (122) dated the 30th September, 1930.

In a resolution No. 260-T (127) dated 30th December, by the Government of India, Department of Commerce, it is stated :—

" The Tariff Board have found that the fair selling price of galvanised sheet manufactured in India is now Rs.236 per ton and that the landed duty free price of imported British sheet is Rs.169 per ton, so that protection is now required for the Indian article to the extent of Rs.67 per ton, the difference between those two prices. As the existing duty on non-fabricated galvanised sheet is at the rate of Rs.30 per ton, the amount of additional protection required is Rs.37 per ton. The recommendations made by the Board are as follows :—

(a) The additional protection required should be given in the form of an additional duty of Rs.37 per ton on imported galvanised sheet, not fabricated ; this additional duty should remain in force for the remainder of the period of protection given by the Steel Industry (Protection) Act, 1927, that is, until the 31st March, 1934.

(b) The duty on imported iron or steel pipes and tubes and fittings therefore if riveted or otherwise built up of plates or sheets, galvanised, should be raised from Rs.33 per ton or 17 per cent. *ad valorem*, whichever is higher to Rs.73 per ton or 17 per cent. *ad valorem*, whichever is higher.

(c) The duty on imported iron or steel sheets (including cuttings, discs and circles) under one-eighth inch thick, fabricated, galvanised, should be raised from Rs.33 per ton or 17 per cent. *ad valorem*, whichever is higher, to Rs.73 per ton or 17 per cent. *ad valorem*, whichever is higher.

" The Government of India accept the findings of the Board in respect of the need for additional protection to the manufacture of galvanised sheet in India and in respect of the amount of protection required. They are unable to accept the view expressed by the Tariff Board that the Legislature by including in the Steel Industry (Protection) Act, 1927, provisions which empower the Governor-General in Council to increase the protective duties in certain circumstances, gave expression to the view that further assistance, when required, should be afforded by way of duties and not by the grant of bounties. The effect of the Act is merely this, that if the method of increasing the duty is preferred, the Government of India can take action without awaiting the sanction of the Legislature, whereas bounties cannot be paid without the vote of the Assembly. But the Government of India must necessarily retain their freedom to submit to the Legislature such proposals as seem best adapted to the circumstances of the case. They have carefully considered the question in what form the additional protection required for the manufacture of galvanised sheet should be given and they have decided

to accept the recommendations of the Board. The arguments for proceeding by way of bounty are, they think, stronger than the Tariff Board believed, but the existing financial conditions preclude the adoption of that method. After the increase in the duty, the price of galvanised sheet will be lower by Rs.34 a ton than the fair selling price as determined by the Board in 1926.

"The Tariff Board have recommended that the higher duty proposed should remain in force for the remainder of the period covered by the Steel Industry (Protection) Act, 1927. It is the view of the Government of India that the higher duty will be required throughout that period, and it is not their intention to reduce the rate, unless circumstances change so radically as to make its retention clearly unnecessary and undesirable. In the notification issued under Section 3 (4) of the Indian Tariff Act the duty has been increased for the period ending on the 31st March, 1931, but a Resolution will be placed before the Legislative Assembly in the coming session recommending its continuance beyond that date.

"In accordance with these decisions, the following increases will be made immediately in the import duties chargeable under the Indian Tariff Act:—

	Item in the Import Tariff Schedule.	Present rate of duty.	New rate of duty.
146	Iron or steel pipes and tubes and fittings therefor, if riveted or otherwise built up of plates or sheets— (a) galvanised ... ..	Rs.33 per ton or 17 per cent. <i>ad valorem</i> , whichever is higher	Rs.73 per ton or 17 per cent. <i>ad valorem</i> , whichever is higher
148	Iron or steel sheets (including cuttings, discs and circles), under $\frac{1}{8}$ in. thick— (a) fabricated— (i) galvanised ... ..	Rs.33 per ton or 17 per cent. <i>ad valorem</i> , whichever is higher	Rs.73 per ton or 17 per cent. <i>ad valorem</i> , whichever is higher
	(b) not fabricated (i) galvanised ... ..	Rs.30 per ton...	Rs.67 per ton

In determining these rates of duty only the price of galvanised sheet of British manufacture has been taken into account as provided in Sections 3 (4) of the Indian Tariff Act, but they will be applicable to all imported galvanised sheet, wherever manufactured."

In January, 1931, the Legislative Assembly passed a resolution that the duties as laid down above should be continued up to 31st March, 1932, and that, before that date, the Government of India should make inquiries in order to ascertain whether a system of bounties might not be substituted wholly or in part for the increased duty.

## INQUIRY INTO THE SALT INDUSTRY.

In my last report I gave a copy of the resolution of the Department of Commerce of the Government of India showing the events leading up to the reference to the Tariff Board.

The report of the Tariff Board was published in September, 1930, and a Committee of the Legislative Assembly was appointed to examine the proposals of the Tariff Board and their report was laid on the table of the Assembly on 13th March, 1931.

On 5th April, the Salt (Additional Import Duty) Act, 1931, received the assent of the Governor-General. Under the Act an additional duty of 4½ annas per maund was imposed on salt imported into any port in British India (except Aden and Perim) but produced outside India. The Act which came into effect on 17th March, 1931, by virtue of a declaration inserted in the Bill under the Provisional Collection of Taxes Act, 1918, is in force until 31st March, 1932.

In a communiqué dated 13th September, 1930, the Government of India stated that they had decided to appoint a Committee to undertake a fuller investigation into the possibility of expanding the existing sources of supply of salt in India, and the effect of such expansion on prices. The Committee consisted of Sir Chunilal Mehta and Mr. C. H. Pitt, the General Manager of the Northern India Salt Range Division, and their report was published in May, 1931. They arrived at the same conclusions as the Tariff Board that there is no ground for assuming that with imports from Aden, India cannot easily be made self supporting in the matter of salt supply and that even the Continent of India itself can, when areas suitable for salt manufacture, but at present lying idle, are developed, supply all the crushed salt that Bengal needs. A copy of the report may be consulted by firms interested at the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

## INQUIRY INTO THE SUGAR INDUSTRY.

The inquiry into the Sugar Industry was referred to the Tariff Board in Resolution No. 127-T (19) dated 20th May, 1930, of the Department of Commerce, and they were asked to determine:—

(i) whether the conditions laid down in paragraph 97 of the report of the Indian Fiscal Commission are satisfied in the case of the sugar industry, in which term is intended to be included the grower of sugar-cane in India, the manufacturer of "gur," including rab, jaggery and all other indigenous forms of raw sugar, and the manufacturer of crystalline sugar;

(ii) to what extent, if any, and in respect of what classes or descriptions of sugar, protection should be afforded, and

(iii) how its recommendations, if any, will affect industries using any sugar-cane products.

The Tariff Board commenced their inquiry at the end of June, 1930, and visited a number of centres in the latter part of 1930. In their report, which was published in March, 1931, they reported, among others, the following conclusions:—

(a) The area under cane in India over a series of years has remained very steady, the average during the last 20 years being 2,840,000 acres.

(b) The main product of sugar-cane in India is "gur," of which between 2½ and 3 million tons are consumed annually.

(c) There are at present 29 factories capable of manufacturing white sugar direct from cane. There are also 14 refineries which manufacture white sugar mainly from "gur." The total output of white sugar by factories and refineries amounts to about 100,000 tons annually. To this must be added about 200,000 tons manufactured annually by the common indigenous process known as the "bel" method. There has been considerable improvement in the extraction of sugar by this process since the Indian Sugar Committee (1920) reported, probably as a result of the use of centrifugals.

(d) There has been a remarkable increase in the efficiency of extraction of Indian factories since the Sugar Committee reported in 1920. At that time the average extraction was 6·85 per cent. which has now improved to about 9 per cent. in Indian factories.

(e) The three conditions laid down by the Fiscal Commission are fulfilled by the sugar industry and a case for protection has been established.

(f) The agricultural aspect of the case for protection is the most important. It is essential in the national interests that the area under sugar cane should not diminish and that a fresh outlet should be provided for cane by encouraging the expansion of the white sugar industry. Unless steps are taken to develop the white sugar industry a disastrous slump in the "gur" market is probable which will seriously affect the agricultural classes, disorganise the agricultural system and involve the abandonment of better cane cultivation in large areas.

(g) The khandsari system of sugar manufacture is of great importance.

(h) Taking the fair selling price at Rs.8-13-1 and the normal landed price at Rs.4, the measure of protection required is Rs.4-13-1 per maund or Rs.6-9-3 per cwt.

(i) Any scheme of bounties is on administrative grounds impracticable. If khandsari manufacturers were included in the scheme, it would be impossible to devise machinery for assessing and checking the bounty. If the khandsari industry were excluded from the scheme, central sugar factories would be given an unfair advantage over this branch of the industry.

(k) Assistance therefore given should be by way of duty. In order to enable the industry to face initial difficulties and to safeguard the position of the manufacturer of indigenous sugar by the "bel" method in Rohilkhand the duty, for the first seven years, should be fixed at Rs.7-4-0 per cwt. and for the remaining period at Rs.6-4-0 per cwt. The total protection thus granted would be approximately the same as would result from the imposition of a duty of Rs.6-9-3 for the whole period of protection.

(l) The period of protection should be for 13 years.

(m) Since agreement regarding export quotas appears to have been arrived at by the leading sugar producing countries, no further immediate increase in duty beyond the protective duty already recommended seems necessary. Should the present international negotiations for stabilisation of prices fail or should market prices in Calcutta in the future fall below Rs.4 without duty, a further duty of 8 annas per cwt. should immediately be imposed.

(n) Power to impose this duty might desirably be vested in the Governor-General in Council but subsequent to the imposition of such duty sanction of the Legislature should be obtained for the continuance of the deferred duty and for the fixation of the period for which it is to be in force.

- (o) The duties should apply to all classes of sugar including sugar candy.
- (p) Expenditure on development and research in connection with sugar cane in India is on a scale which in view of the importance of the sugar-cane crop may be considered small, particularly when compared to expenditure in such countries as Java and Hawaii. Increased sums should be allotted to development and research work since without such measures the whole purpose of the protective scheme is likely to be delayed if not defeated. Indeed this is almost a condition precedent to protection.
- (q) A grant of not less than Rs.10 lakhs annually should be made to the Imperial Council of Agricultural Research for this purpose. If the scheme of protection outlined is accepted legislation should be introduced making it compulsory for sugar factories to submit such returns or information as may be called for by the Governor-General in Council or any officer authorised by him in this behalf.
- (r) The scale for cane payment recommended by the Indian Sugar Committee, namely a sliding scale based on price for cane equal to half the price of sugar manufactured from it subject to a minimum of 6 annas per maund appears generally suitable. But in the first years of protection this should be increased by one anna per maund.
- (s) Power should be taken to enable the Governor-General in Council or any authority authorised by him in this behalf to issue rules requiring sugar factories to post in a conspicuous place at the entrance to the factories notices specifying such matters in connection with rates paid for cane as may be thought fit.
- (t) The Sugar Committee is right in its opinion that any attempt to force cultivators to surrender control over land to sugar factories is undesirable.
- (u) There are not sufficient reasons for introducing a system of licensing of factories and definite zones of operation for each factory.
- (w) Government should not invest in shares in sugar companies but the grant of loans by Government, should this form of assistance appear desirable in any particular instance, would not be open to objection.
- (x) If the industry is declared protected, steps should be taken as early as possible to ensure that the conditions suggested by the Fiscal Commission are fulfilled by companies engaged in Sugar Industry. (See paragraph 292 of the Fiscal Commission's Report).
- (y) Fair representation of Indian interests on the Directorate and opportunity for Indian investors to subscribe to the share capital of new companies should be secured by such means as Government may consider practicable in the circumstances of the sugar industry.
- (z) No loan, grant, subsidy or other facility should be offered to any sugar factory which has not complied with these conditions."

**Decision of the Government of India.**—In introducing the Budget for 1931-32, the Finance Member stated :—

"The case of sugar is a special one. I have included it in the list of items on which the basic rate is to be changed, but, in a sense, our proposal is actually in the nature of a surcharge. The position is special, because, while I am now proposing an increase in the duty for revenue purposes, we had received, just when my budget proposals were on the point of completion, the recommendations of the Tariff Board for the protection of sugar. Although I, as Finance Member, in bringing forward a Finance Bill must look at the matter entirely as a revenue question, nevertheless, it would obviously be absurd for us to pretend that, with the Tariff Board's proposals in our hands, we can consider revenue measures with no reference in our minds to the plan for protection on which the Government will have to take a decision at an early date. At the same time, sugar duties cannot be permanently adopted as protective measures until they have been carefully examined by the Government and discussed, as protective measures, by the Legislature. My budget proposals

must therefore be regarded purely as revenue measures which are, however, provisional in the sense that they may shortly have to take on a permanent protective aspect.

"The Tariff Board's Report will, I understand, be almost immediately available to Honourable Members. In the meanwhile, I must explain what are their recommendations as regards sugar duties. Summarised, the Board's recommendations are :—

(1) A basic duty of Rs.6-4-0 per cwt. on all classes of sugar, including sugar candy, to be imposed for 15 years.

(2) An additional duty of Rs.1 per cwt. on all classes of sugar to be imposed for the first 7 years.

(3) Power to be taken to add 8 annas per cwt. to the duty at any time if the landed price of sugar at Calcutta ex duty falls below Rs.4 per maund.

(4) No protective duty on molasses.

"Comparing these proposals with the present rates of duty, the position is as follows :—

"Leaving out of consideration, for the moment, the lower grades which are of minor importance, the Government would, if they adopted the Tariff Board's recommendation, have to raise the duty on sugar of 23 D.S. and over from its present rate of Rs.6 per cwt. to Rs.7-4-0, *i.e.*, to impose an additional duty of Rs.1-4-0 per cwt., while they would further have power to add an additional 8 annas per cwt. to the duty if the landed price at Calcutta falls below Rs.4 per maund. I may say that at present the price is hovering just about this level.

"So much for the Tariff Board's plan. My own proposals for revenue purposes had been very close to this, for I had actually contemplated an extra duty round about Rs.1 to Rs.1-8-0 per cwt. What I have now included is an increase of Rs.1-4-0 per cwt. on all grades of sugar. This, as I have said, must be regarded purely as a revenue measure pending consideration of the Tariff Board's recommendations. But Honourable Members will see that it is not inconsistent with those recommendations."

The decision of the Government of India on the remainder of the recommendations of the Tariff Board has not yet been published.

## INQUIRY INTO THE MANUFACTURE OF CERTAIN RAILWAY MATERIALS MADE OF STEEL.

In the Government of India, Commerce Department Resolution No. 38-T (16) dated 15th May, 1930, the following inquiry was referred to the Tariff Board :—

"The Government of India have received a representation from Messrs. Henry Williams (India) Ltd., stating that the manufacture in India of the

- (1) Chrome steel points and crossings
- (2) Bearing plates
- (3) Fishbolts
- (4) Rivets
- (5) Bolts and nuts
- (6) Dog spikes
- (7) Stretcher bars
- (8) Gibs and cotters

articles specified in the margin is hampered by the fact that the import duties on the manufactured articles are lower than, equal to or insufficiently above the protective duties levied on the materials required for their manufacture, and asking that the Tariff Board may be directed to inquire into the question whether higher duties should be imposed on all or any of the articles mentioned. The Government of India have decided to refer this question

to the Tariff Board. The Board is requested to examine the representation and make such recommendations as it deems fit."

**Conclusions of the Board.**—The Tariff Board recommended that the following duties should be imposed :—

Fishbolts and nuts.	}	Rs.2-4-0 per cwt.
Ordinary bolts and nuts.		
Dog spikes.		
Rivets.	}	Rs.2-0-0 per cwt.
Gibs, cotters and keys.		

They also proposed that chrome steel switches and crossings should no longer be exempt from the protective steel duty and that stretcher bars, whether imported with switches and crossings or separately should be liable to the protective duty.

**Government of India Decision.**—The Government of India accepted the recommendations of the Tariff Board, which were embodied in the Steel Industry (Protection) Act, 1931, which received the assent of the Governor-General on the 28th February, 1931, from which date the revised duties came into force.

#### INQUIRY INTO THE PRICE OF STEEL RAILS.

In the Government of India, Department of Commerce Resolution No. 260-T (124) dated 1st December, 1930, this inquiry was referred to the Tariff Board :—

“ Following the recommendation made by the Tariff Board in their report of 1926 on the Continuance of Protection to the Steel Industry that the Railway Administrations should arrange to purchase the whole of their requirements of rails in India, so far as they can be produced in the country, a contract was made with the Tata Iron and Steel Co., Ltd., under which the Government of India agreed, subject to certain conditions specified in the contract, to purchase rails from the Company at the rate of Rs.110 per ton for a period of seven years beginning on the 1st April, 1927. In September, 1930, the Government of India agreed on certain conditions to an extra payment of Rs.20 on each ton of rails ordered from the Tata Iron and Steel Co. under the contract mentioned above for the year 1930-31. This additional payment was made as an act of grace on the ground that the annual quantity of rails taken by Government had on the average fallen considerably below the estimate upon which the scheme of protection to the iron and steel industry formulated by the Tariff Board in 1926 and embodied in the Steel Protection Act of 1927 was based, regard being had in particular to the views expressed by the Tariff Board in paragraph 109 of their Report. In view of this curtailment in their orders for rails since the contract was made and of the probability that the quantity of rails to be ordered during the remaining years of the contract will continue to fall considerably short of the original estimate, the Government of India are prepared to consider whether until the period covered by the contract terminates an additional payment per ton of rails should not be made to the Iron and Steel Company, and they have decided to refer the matter to the Tariff Board for enquiry and report.

“ The Tariff Board are accordingly directed to report after such enquiry as they may consider necessary whether in all the circumstances of the case an additional payment should be made to the Tata Iron and Steel Co. in respect of the orders for rails placed under the contract in future and if such additional payment is recommended, how the amount should be determined. Since the contract was made, orders have also been placed with the Company for 115 lb. rails which are not covered by the terms of the original contract and the Tariff Board should also consider what additional payment (if any) should be made

in respect of them. The Government of India do not anticipate that it will be necessary for the Tariff Board to take evidence except from the Tata Iron and Steel Co. and the Railway Board. They hope that the Tariff Board may find it possible to submit their recommendations by the 7th January, 1931.

**Conclusions of the Board.**—At the time that the price of Rs.110/- per ton for rails f.o.r. Jamshedpur was fixed for a period of seven years from the 1st April, 1927, it was estimated that the orders for rails would approximate 200,000 tons per annum. The present orders are about 88,000 tons and, due to the restriction of the construction of new lines in the immediate future, there does not appear to be any probability of increase on the latter amount. In the circumstances, the Tariff Board are of opinion that the claim to an additional price for rails is justified.

With regard to the second point, the Tariff Board are of the opinion that their task was to determine what share of the increased expenditure per ton of steel, resulting from the decline in the tonnage of rails ordered can reasonably be charged against the price of rails and, after examining the matter, they came to the conclusion that a figure of Rs.8 per ton represents a fair estimate of the difference in the works costs during a seven-year period resulting from the decline in orders for rails. To this has to be added Rs.12/- per ton which represents the increase in overhead charges and profit which may properly be allocated to rails.

The Tariff Board, therefore, consider that Rs.20/- represents the increase per ton which might be made to the price of rails on account of the diminution of orders and that a price of Rs.130/- per ton cannot therefore be considered too high.

With regard to the additional payment to be made in respect of 115 lb. rails, the Tariff Board find that the cost of manufacturing these rails is approximately Rs.7/- per ton more than that of 90 lb. rails and they, therefore, recommend that the price to be paid for 115 lb. rails should be Rs.137/- per ton. Their recommendation is subject to the condition that this class of rails is included in the contract with the Railway Board and that all orders are placed with the Tata Iron and Steel Company. If orders were small or irregular, a higher price would be necessary.

**Decision of the Government of India.**—In moving a resolution in the Legislative Assembly on 1st April, 1931, regarding the additional payment for rails to the Tata Iron & Steel Co., Ltd., the Honorable Sir George Rainy, Member for Commerce and Railways, accepted the recommendation of the Tariff Board so far as 90 lb. rails were concerned. With reference to the 115 lb. rails he stated :—

“ There is one small point of detail which I had better mention and that is the 115 lb. rails which were not included in the original contract because at that time rails of that weight were not wanted. A supplementary contract made in 1929 fixed the price at Rs.120 a ton, on the representation of the Tata Iron and Steel Co. that they were rather more expensive to make. We felt that as regards the additional payment, these 115 lb. rails hardly stood in the



same position as the other rails, and that instead of an additional payment of Rs.20 a ton, we could not justify to this House the payment of a larger amount than Rs.10 a ton, making Rs.130 in all, or the same price which it is proposed to pay for the other rails."

After discussion, the following resolution was adopted :—

" This Assembly recommends to the Governor-General in Council that he should make to the Tata Iron and Steel Co. Ltd., an additional payment for such quantity of rails as may be ordered from the Company for the year 1931-32 under the terms of the existing contract made by the Secretary of State for India in Council with the Company, such additional payment to be at the rate of Rs.20 for each ton of rails over and above the price specified in the contract, namely, Rs.110 per ton. This Assembly further recommends that for such quantity of rails of 115 lb. per yard section as may be ordered from the Tata Iron and Steel Co., Ltd., for the year 1931-32 the Governor-General in Council should make an additional payment at the rate of Rs.10 for each ton of rails over and above the price fixed for these rails in 1929, namely, Rs.120 per ton."

### INQUIRY INTO THE GOLD AND SILVER THREAD AND ALLIED INDUSTRIES.

On the 15th May, 1930, the Government of India in their Resolution No. 180-T (12) referred to the Tariff Board an inquiry in regard to the question of extending protection to the manufacture in India of silver plate, silver thread and wire (including so-called gold thread and wire mainly made of silver), silver leaf and other silver manufactures.

The Board summarise their conclusions and recommendations as follows :—

" We consider that a case has been made out for the protection of the gold thread industry and we recommend that the duty should be fixed at 50 per cent. *ad valorem* applying alike to real gold thread, lametta, manufactures from silver wire such as spirals, spangles, etc., and all colourable imitations. For protective purposes a specific duty is admittedly more suitable but in view of the great variety of classes of gold thread and its substitutes and the difference in the prices of the various classes, we consider a specific duty inapplicable in this case. As regards the period of protection we are advised by the Department of Industries, Bombay, that it will take at least 10 years before the Indian industry can reach the European standard of quality and we recommend that the protective duty should be imposed for that period."

The Government of India accepted the recommendations of the Tariff Board, and the Gold Thread Industry (Protection) Act, 1931, came into force with effect from the 28th February, 1931. Under this Act the revised duties are as follows :—

Silver plate and silver manufactures, all sorts not otherwise specified ... ..	40 per cent. <i>ad valorem</i>
Gold plate, gold leaf and gold manufactures, all sorts not otherwise specified ... ..	" "
Silver thread and wire (including so-called gold thread and wire mainly of silver) and silver leaf; including also imitation gold and silver thread and wire, lametta and metallic spangles, and articles of a like nature, of whatever metal made	50 per cent. <i>ad valorem</i>

## REVENUE DUTY ON PIG IRON.

The Tariff Board in their report state that the question of the retention or removal of the duty arose in the following manner :—

“ The duty on machinery was removed in September, 1927, and in a representation to the Board the Britannia Engineering Co., Calcutta, pointed out that this would adversely affect their position as manufacturers of jute and tea machinery, since their raw materials, namely steel and pig iron, were liable, the one to a protective and the other to a revenue duty, while foreign machinery would be admitted free. It was considered that the removal of the duty on pig iron might to some extent remove the inequality of treatment, if any case for relief was established. Accordingly in July, 1928, the Board addressed manufacturers of pig iron, requesting their views on the subject of the removal of the duty. Meanwhile the Britannia Engineering Co. requested that their application should be kept pending for 12 months after which they would be in a better position to gauge the exact effect of the removal of the duty on machinery. At the end of this time, the Company withdrew their application.

“ While the application of the Britannia Engineering Co. remained pending, representations were also received from the following firms and institutions asking for the removal of the duty :—

1. Messrs. Kirloskar Bros., Kirkloskarwadi.
2. The Sikdar Iron Works, Calcutta.
3. The Bihar and Orissa Chamber of Commerce.
4. The Bengal National Chamber of Commerce.

Many of the grounds on which the removal of the duty on pig iron was urged in these representations do not fall strictly within our terms. For example it was urged that the existence of a combine of manufacturers of pig iron with the avowed object of maintaining prices was contrary to the public interest ; that the revenue duty afforded indirect protection to the industry for which no case could be established ; that by maintaining prices at a high level the manufacturers were themselves able to engage in the foundry business without fear of competition from other firms, who had to purchase their supply of pig iron in the open market. With these and other reasons advanced for the removal of the duty we are not directly concerned in an enquiry confined to the question of tariff inequality though we shall have occasion to refer to some of them at a later stage of the report.

“ It is alleged in all the representations regarding the removal of the duty that the three largest producers of pig iron in India, namely the Tata Iron and Steel Co., the Indian Iron and Steel Co., and the Bengal Iron Co. have entered into business arrangements, whereby the price of pig iron is maintained at the import level and in the absence of competitive conditions the internal price of pig iron is enhanced by the 10 per cent. import duty. Manufacturers of machinery in which cast iron plays a part are therefore at a disadvantage in competing with similar imported machinery. It is therefore claimed that the duty on pig iron should be removed. It is this presentation of the case which we have in the main to investigate.”

**Conclusions of the Board.**—The Tariff Board after taking the evidence of interested parties came to the following conclusion :—

“ We have found that the removal of the revenue duty on pig iron would not directly interfere with our scheme of protection for the steel industry. At the same time the advantage thereby received by manufacturers of machinery would be negligible and it has not been proved that the continuance of the duty will place them at any considerable disadvantage in competing with imported goods. The removal of the duty will result in a diminution in the profits of

the iron companies, which in the case of the Tata Iron and Steel Company may amount to about one lakh of rupees annually. In view of the recent strike at the Tata Iron and Steel Co's works we consider the present an unfavourable time for the removal of the duty. Further, the proposal, if accepted, would adversely affect the Mysore Iron Works and render their successful working a matter of considerable difficulty. Since this is the only ironworks not included in the combine, any restriction of its activities might in the end react unfavourably on the consumer. The success of this enterprise is also of considerable importance from the national point of view, affording as it does a reserve supply of acetone for the manufacture of explosives. Our conclusion, therefore, is that no case has been made out upon which we can base any recommendation for the removal of the revenue duty. We think that no serious harm will be done to any consumer if it is retained until the statutory enquiry into the steel industry takes place in 1933-34 or earlier. The whole position can then be re-examined and if it is then found that a better case is made out for its removal, the duty may be removed."

**Decision of the Government of India.**—The Government of India in their Resolution No. 38-T (14) dated 13th June, 1931, accepted the finding of the Tariff Board.

#### INQUIRY INTO THE HEAVY CHEMICAL INDUSTRY.

In my last report I referred briefly to this inquiry which was still under consideration. The terms of reference to the Tariff Board, which were contained in the Government of India Department of Commerce Resolution No. 199-T (8) dated 16th July, 1928, covered sulphuric acid, hydrochloric acid, nitric acid, magnesium sulphate, ferrous sulphate, potash alum, aluminium sulphate, sodium sulphide, zinc chloride, copper sulphate, and Glauber's salt.

In the terms of reference the attention of the Tariff Board was called to the fact that the removal of the import duties on materials of industry was recommended by the Fiscal Commission and was in accordance with the principle of the Resolution adopted by the Legislative Assembly on the 16th February, 1923; that the chemicals in question were utilised as raw materials in certain Indian industries and that the Government of India have decided that, along with the question of extending protection to the manufacture of particular chemicals, the Tariff Board should examine the question of the removal of the import duties on those chemicals which are used as materials in Indian industries.

**Conclusions of the Board.**—The main conclusions of the Tariff Board may be summarised as follows:—

(a) The basis of the whole group of chemicals considered in this report is sulphuric acid. On account of the heavy freight on acids, the manufacture of sulphuric, hydrochloric and nitric acids has generally been carried on profitably in India. The absence of this natural protection, however, in the case of salts derived from sulphuric acid has prevented their manufacture except on a small scale.

(b) The total market in India (excluding Burma) for the chemicals with which we are concerned is approximately 12,000 tons in terms of chamber acid on a 100 per cent. basis. In the next few years we estimate that the market may reach 16,000 tons, without taking into account the manufacture of

artificial fertilisers. On these figures we find that the market in India is sufficiently large for the production of chemicals on an economic scale.

(c) The case for protection of the chemical industry rests primarily on its supreme national importance. It is a key industry, the products of which are used in most other industries, it is indispensable for purposes of national defence and it provides an essential foundation for chemical research in industries and agriculture.

(d) The present costs of the industry, however, are based on too small a scale of production and cannot be accepted as a suitable basis for determining the measure of protection. We consider that if the industry were so organised that one of the two chemical works in Bombay would supply the whole of the market in Western India, the resulting costs would afford a more appropriate basis for determining the measure of protection.

(e) On this basis we consider that during the period of protection the industry should attain an average annual production of 4,000 tons of chamber acid on a 100 per cent. basis. If this output is attained, we estimate that the fair selling price of chamber acid at 100 per cent. will be Rs.75 a ton. Taking the corresponding fair selling prices of the various chemicals and comparing them with the latest import prices, we find that except in the case of Epsom salts and zinc chloride, no substantial addition to the revenue duty will be required while in some cases duties considerably less than the revenue duty will suffice. On the three acids and on copperas no protection will be necessary.

(f) If the industry attains an output of 8,000 tons of chamber acid on a 100 per cent. basis, for which in the next few years a sufficient market would be found in Western India, we estimate that the fair selling price of chamber acid at 100 per cent. will be Rs.55 a ton, which compares very favourably with the price of sulphuric acid of the same strength in any other part of the world. On the corresponding fair selling prices for the various chemicals, we find that the three acids and five out of the eight salts we are considering will require no protection at all. Of the remaining salts, one will require a duty well below the revenue duty and in the case of two only would a duty in excess of the revenue duty be required. Further economies and increased output may reduce costs still more.

(g) On these facts we find that the conditions laid down by the Fiscal Commission are substantially fulfilled by the chemical industry.

(h) Our recommendations regarding the form and measure of protection are set out in Chapter VI and Appendix I. We propose that the protection required should be given generally in the form of specific duties. In the case of Epsom salts and zinc chloride the specific duties proposed are equivalent to *ad valorem* duties of 44 per cent. and 34 per cent. respectively. We are satisfied that no appreciable burden will be thrown on industries thereby. On the other chemicals, the duties represent substantially the present level of revenue duties. In certain cases where on the fair selling prices a reduction in the revenue duties might be theoretically justifiable, we have proposed their retention at the present rate as there has been no serious demand for their reduction and the effect on the industries concerned is negligible.

(i) We desire to emphasise the interconnection of the duties we have proposed on the various classes of chemical products. The alteration of any individual duty may have unforeseen consequences on the output and cost of production of other chemicals, thus vitiating the whole scheme of protection.

(k) On account of overproduction in European countries and the existence of large combines in the chemical industry, we cannot make any forecast regarding the future course of import prices. We therefore recommend that power should be conferred on the Governor-General in Council to levy such additional duties as may be necessary to offset a decline in import prices.

(l) It is impossible to estimate precisely the period within which the chemical industry will be able to dispense with protection. We therefore recommend as in the case of the steel industry that no limit should be fixed to the

period of protection, but that provision should be made for a fresh inquiry at the expiration of seven years.

(m) We find that there is no case for the removal of the import duties on those chemicals which are used as materials in Indian industries. No substantial relief of the burden on industries is likely to result and the question of the removal of these duties must wait until a general revision of the fiscal policy with a view to the removal of duties on all raw materials is effected.

(n) In view of the close connection between the chemical industry and the manufacture of two classes of artificial fertilisers, namely ammonium sulphate and superphosphate, in the manufacture of which sulphuric acid plays an important part and in view of their obvious importance for Indian agriculture, we have considered the advisability of fostering the manufacture of these fertilisers in India.

(o) No assistance is called for under present circumstances in respect of ammonium sulphate. But, having regard to the fact that ammonium sulphate is already produced in India on a considerable scale, we consider it important that the price at which it is sold in India should be substantially reduced with a view to the encouragement of agriculture and extension of the market for fertilisers. The present price in India is considerably above the level in England, though the purchasing power of the Indian ryot is much below that of the English farmer.

(p) We find that the manufacture of superphosphate is a suitable industry for the grant of protection. We believe that in spite of competition from compound fertilisers there will be a sufficiently large market in India for superphosphate and that the establishment of a local industry will help materially to reduce its price to the great benefit of the Indian agriculturist.

(q) We recommend that the protection required for the manufacture of superphosphate should take the form of a bounty. The bounty should be payable on the first 10,000 tons of superphosphate produced in a year by any individual factory whose annual output is not less than 2,000 tons. We have proposed a minimum output to qualify for the bounty because we consider that it is undesirable to encourage the establishment of small uneconomic units of manufacture which would be unable to survive the withdrawal of protection. The rate of bounty should be fixed at 12 annas per unit of soluble phosphoric anhydride. The payment of bounty should be subject generally to the conditions laid down in the Steel Industry (Protection) Act, 1924, and the maximum liability of Government should be fixed at 7 lakhs of rupees annually for a period of seven years.

(r) We have based our proposals for the protection of the chemical industry on the assumption that production will be carried on by several units of manufacture working independently in the principal centres of distribution. In view of the increasing tendency to large-scale organisation in other countries, we consider that a much more economical method of development would be to organise a single unit of manufacture supplying the whole of the Indian market until each important centre of distribution has ultimately developed a large enough market of its own. A reorganisation of the industry on these lines necessarily implies a substantial reduction of transport charges both on raw materials and on finished products by the principal carriers of goods in the country, namely the railways.

**Decision of the Government of India.**—In their Resolution No. 199-T (11) dated 5th September, 1931, the Government of India give their views and detail the action which they propose should be taken on the Tariff Board's recommendation as follows:—

*Views of the Government of India.*—The Government of India have given very careful consideration to these recommendations and have found themselves confronted by certain difficulties which the Board's close and thorough

examination of the subject of their enquiry has exposed. That the present organisation of the chemical industry in India is unsatisfactory is evident, and, in the opinion of the Government of India, the imposition of the duties proposed by the Board would not, by itself, lead to the development of the industry on healthy lines but would rather tend to perpetuate its existing uneconomic organisation. At the same time, the Government of India consider that if the industry is found to deserve assistance, the rates of duty proposed by the Board are generally suitable. In view of the time which has elapsed since the Board reported, current prices of imported chemicals have been ascertained from Bombay and Calcutta and these show that any change which has taken place in price levels is not sufficient to require an alteration in the scale of protective duties recommended by the Board.

The Government of India consider that, while the scheme proposed by the Board for encouraging the manufacture in India of superphosphates by means of bounties would undoubtedly be of assistance in raising the volume of chemical production in India towards a level at which economical production becomes possible, and while they agree that, if the manufacture of superphosphate is to receive public assistance, such assistance should be given by means of bounties and not of duties, they would not be justified in putting the Board's proposal into immediate operation. The grant of assistance by means of protective duties or of a bounty to an industry not yet in existence is an unusual step and the Government of India are of opinion that the whole question requires further expert examination. It is by no means certain that superphosphate represents the best or the most economical form in which Indian soil deficiency in phosphates can be supplied, and if the decision is favourable on this point, the Government of India consider it desirable, before a final decision is reached, to submit to expert examination the question of the cost at which superphosphate can be produced in India and whether a scheme on the lines proposed by the Board would ultimately lead to the supply of manures at lower prices to the cultivator. Subject to any new facts which may emerge in the course of the expert examination, the scale of assistance proposed by the Board is accepted by the Government of India as suitable should such a scheme be finally approved.

*Action proposed to be taken.*—In the circumstances stated, the Government of India have decided to take the following action :—

(a) To propose the placing of protective duties on the following articles and at the rates shown against each, as recommended by the Tariff Board in Appendix I to the report :—

<i>Names of articles.</i>	<i>Rate of duty.</i>
1. Acid, hydrochloric ... ..	Rs.2-9-0 per cwt. or 15 per cent. <i>ad valorem</i> whichever is higher.
2. Acid, nitric— Having a density at 15°C. of not more than 1.42 grms. per c.cm.	Rs.3-10-0 per cwt. or 15 per cent. <i>ad valorem</i> whichever is higher
Having a density at 15°C. of more than 1.42 grms. per c.cm.	Rs.5-3-0 per cwt. or 15 per cent. <i>ad valorem</i> whichever is higher
3. Acid, sulphuric ... ..	Rs.1-4-0 per cwt. or 15 per cent. <i>ad valorem</i> whichever is higher.
4. Alum, <i>viz.</i> , ammonia alum, potash alum or soda alum	Annas 15 per cwt.
5. Aluminium sulphate or hydrated aluminium sulphate, including aluminoferric and alum cake— Containing not more than 0.010 per cent. of iron	Annas 13 per cwt.
Containing more than 0.010 per cent. of iron	Annas 9 per cwt.
6. Copper sulphate or hydrated copper sulphate	Rs.3 per cwt.
7. Magnesium sulphate or hydrated magnesium sulphate— Containing not more than 50.0 per cent. of magnesium sulphate	Rs.1-4-0 per cwt.
Containing more than 50.0 per cent. of magnesium sulphate	Rs.2-8-0 per cwt.
8. Sodium sulphate or hydrated sodium sulphate— Containing not more than 50.0 per cent. of sodium sulphate	Annas 6 per cwt.
Containing more than 50.0 per cent. of sodium sulphate	Annas 13 per cwt.
9. Sodium sulphide or hydrated sodium sulphide	Rs.1-7-0 per cwt.
10. Zinc chloride or zinc chloride solution ...	Rs.4-5-0 per cwt.

with the addition of a proviso that the duty on any of these articles shall in no case be less than the duty which would be charged if the articles were included in Part V of the Statutory Tariff Schedule. This proviso is required to prevent loss of revenue while the revenue duty, which now bears a surcharge of 5 per cent. *ad valorem* is higher than the protective duty. The existing duty on copperas must be retained unchanged in view of Article II of the Commercial Convention between India and France of 1903.

(b) To propose that the new protective duties shall have effect until the 31st March, 1933, in the first place, pending further consideration of the possibility of reorganising the industry on an economic basis and expert investigation of the superphosphate bounty scheme for which they are already engaged in making necessary arrangements.

(c) To introduce a Bill during the forthcoming session of the Legislature to give effect to these proposals.

During the short period for which the protective duties are imposed, the Government of India do not propose that power should be taken to increase the duties by executive action.

The Government of India will be prepared to discuss with representatives of the chemical manufacturing interests in India how the question of developing the industry can best be studied further. As has been made clear above, in the view of the Government of India a drastic reorganisation of the industry is indispensable, if success is to be achieved, and one of the most important questions to be considered will be how that reorganisation is to be brought about.

## INQUIRY INTO THE MAGNESIUM CHLORIDE INDUSTRY.

When referring the inquiry into the heavy chemical industry to the Tariff Board, the Government of India gave the Tariff Board power to extend their inquiry to other chemicals not included in the list referred to in their notification dated 16th July, 1928. The applicants for protection were the Pioneer Magnesia Works of Kharaghoda in the Bombay Presidency, who had submitted a previous application in 1924, which was referred to in my report for the year 1924-25. At that time the Tariff Board came to the conclusion that the claim to protection was not justified, and the Government of India accepted their finding.

**Conclusions of the Board.**—The Tariff Board have thoroughly re-examined the application and have reported their conclusions as follows :—

“ We find then that the magnesium chloride industry substantially satisfies the conditions for protection laid down by the Fiscal Commission and that it is as much in the interest of the consumer as it is of the manufacturer that the industry should be reasonably protected. The protective duty required on our calculations is 15 per cent. *ad valorem* which corresponds to the general level of revenue duties and on the present price would amount to six annas eleven pies per cwt. We recommend that this duty, which was removed in September, 1927, be reimposed and be declared a protective duty. As in the case of the other protective duties which we have proposed in our Report on the Heavy Chemical Industry, we recommend that a specific duty should be imposed. This will amount in round figures to seven annas a cwt. As regards the period of protection we recommend that this be provisionally fixed at seven years. At the expiry of this period the question may be re-examined when the inquiry regarding other heavy chemicals is undertaken. But more important than the imposition of a specific protective duty, is the necessity of providing against violent fluctuations in import prices, whatever may be their cause. As we have already indicated the course of future prices is entirely uncertain and we therefore recommend that as we have proposed in the case of the heavy chemical industry legislative provision should be made for the imposition of additional duties to offset any decline in import prices.”

**Decision of the Government of India.**—In a Resolution No. 5-T (6) dated 5th September, 1931, the Government of India summarise the action which they propose to take on the Tariff Board's report as follows :—

2. The Government of India accept the finding of the Board that the magnesium chloride industry substantially satisfies the conditions for protection laid down by the Fiscal Commission and that it is in the interest of the consumer as well as of the manufacturer that the industry should receive a reasonable measure of protection.



3. The Board recommend that a protective duty of 7 annas per cwt. should be imposed on magnesium chloride. The Government of India accept this recommendation. The Government of India also agree with the Tariff Board that the period of protection should be fixed at 7 years at the expiry of which the question should be re-examined.

4. The Government of India are unable to accept the recommendation of the Tariff Board that power should be taken to increase the duty by executive action to offset any fall in import prices. In their view such a step requires special justification; and they are not satisfied that its application to magnesium chloride is necessary, for the price of this chemical in India has been stable for the last three years and according to the information supplied to the Tariff Board that price was not remunerative to the foreign manufacturer.

5. The Government of India propose to introduce legislation during the ensuing Session to give effect to the decisions stated in paragraphs 3 and 4 of this Resolution.

### TARIFF INEQUALITY IN RESPECT OF THE MANUFACTURE OF METHYLATED SPIRIT.

In my last report I referred to this inquiry which had been referred to the Tariff Board, but the result of their investigations had not then been published.

In their report on the inquiry into the Sugar Industry the Tariff Board state:—

“ We have no recommendation to make regarding the application of Messrs. Carew & Co. for the removal of tariff inequality on methylated spirit consequent on the present duty on molasses. The application has now been withdrawn since even if the duty was completely removed, the manufacture of methylated spirit in India would not at the present price of molasses be economically possible.”

### OTHER INQUIRIES WHICH HAVE BEEN REFERRED TO THE TARIFF BOARD.

**Inquiry into the Paper Making Industry.**—In my report for the year 1924-25 I referred to the report of the Tariff Board into the Paper and Paper Pulp Industries. As a result of their recommendations the Government of India imposed for a period of seven years, specific duties on certain classes of paper. These duties which were imposed by the Bamboo Paper Industry (Protection) Act, 1925, expire in 1932, and the Government of India have therefore referred to the Tariff Board the question as to whether further protection is still necessary in their notification No. 202-T (26) dated 26th March, 1931, which reads as follows:—

“ Under the Bamboo Paper Industry (Protection) Act, 1925, protective duties were imposed on certain kinds of paper in order to develop the manufacture in India of paper from bamboo. These duties will expire on the 31st March, 1932, and before that date it is necessary that an enquiry should be held in order to ascertain how far the Act has achieved its purpose and whether the continuance of protective measures beyond that date is desirable. The Tariff Board is therefore requested to examine the question and to consider what protective measures (if any) should be continued after the 31st March, 1932. In making its recommendations the Tariff Board will take all relevant considerations into account including that stated in part (b) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923.

"Firms or persons interested in the paper-making industry or in industries dependent on the use of paper who desire that their views should be considered by the Tariff Board should address their representations to the Secretary to the Board.

"The Government of India hope that the Tariff Board will be able to submit their Report by the 15th October, 1931."

The Tariff Board are at present receiving evidence\*.

**Inquiry into the Wire and Wire Nail Industry.**—In my report for the year 1927-28 I referred to the Statutory inquiry into the Steel Industry which was undertaken by the Tariff Board. The Tariff Board recommended and the Government of India accepted their recommendation that the protective duty on wire and wire nails be discontinued. The Government of India has now received an application for the restoration of the protective duty and they have referred it to the Tariff Board in the following terms (Notification No. 362-T (11) dated 9th May, 1931):—

"The Government of India have received an application from Messrs. The Indian Steel Wire Products, Tatanagar, asking for the restoration of protection to the wire and wire nail industry. After careful consideration the Government of India have decided to refer the application to the Tariff Board.

In making the inquiry the Tariff Board will be guided by the principles laid down in the Resolution adopted by the Legislative Assembly on February 16th, 1923, and in particular will consider how its recommendations, if it makes any, will affect industries using wire and articles manufactured from it." The inquiry by the Tariff Board will not be completed for some time\*.

**Inquiry into the Electric Wire and Cable (other than Paper Insulated Cables) Industry.**—In my last report I referred to an investigation which the Tariff Board undertook into the tariff equality in respect of the manufacture of electric wires and cables. The Government of India have now received an application for protection to the manufacture of electric wires and cables, other than paper insulated cables, and in their Notification No. 38-(T) 20 dated 11th May, 1931, they have referred it to the Tariff Board. The notification reads as follows:—

"In pursuance of paragraph 3 of the Resolution by the Government of India in the Department of Commerce No. 3748, dated the 10th July, 1923 (Tariffs), the Government of India have decided to refer to the Tariff Board an application for protection to the manufacture of electric wires and cables, other than paper-insulated cables, which has been received from the Indian Cable Company Limited, Calcutta.

"In making its inquiry the Board will be guided by the principles laid down in the resolution adopted by the Legislative Assembly on the 16th February, 1923, and will consider:—

- (i) whether the conditions laid down in the Report of the Indian Fiscal Commission are satisfied in the case of the industry and whether it should be protected;
- (ii) if so, in what form and for what period protection should be given; and
- (iii) how its recommendations, if any, will affect other industries."

The Tariff Board still have this inquiry in hand\*.

\* These enquiries have now been completed.

## CHAPTER V.

## AN ACCOUNT OF THE PROGRESS MADE DURING THE PAST YEAR IN CERTAIN OF THE MORE IMPORTANT IRRIGATION, HARBOUR, HYDRO-ELECTRIC AND OTHER PROJECTS IN INDIA.

## 1. IRRIGATION.

**PUNJAB.**

The Chief Engineer, Irrigation Works, Punjab, has courteously supplied the following note on irrigation projects in the Punjab :—

“ The last note covered the period up to June, 1930, and the present note deals with the period ending June, 1931.

**Sutlej Valley Project.**

“ The completion of the canals taking off at Ferozepore, Suleimanke and Islam on the Sutlej was continued. The works done consisted principally of the development of distributaries and watercourses, and call for no particular comment. Progress has, however, been delayed owing to the economic depression, particularly in agriculture which has hindered the sales of land and discouraged cultivation, and the consequent development of the project.

“ The only important work which still awaits completion is the headworks at Panjnad, immediately below the junction of the Sutlej and Chenab Rivers, and the canals taking off therefrom.

“ The extension to the original design of the main weir, which was decided upon after the accident to the weir at Islam in September, 1929, was finished before the beginning of this year's flood season, and there now remains only the diversion of the river, which will be carried out during the coming cold weather. This turning of so vast a stream as the Chenab (which at Panjnad has already absorbed the other four rivers of the Punjab), from its present course to the newly constructed headworks will be a fitting termination to the construction of the great Sutlej Valley Canal project, which has been estimated to cost nearly £18 million and to irrigate 5 million acres of land each year.

**The Bhakra Dam Project.**

“ In this connection, the demarcation of rectangle lines and general surveys are being carried out. The project contemplates the utilisation of the surplus monsoon discharges of the River Sutlej.

**The Haveli Project.**

“ A skeleton project estimate is now in course of preparation. The project is designed to improve the available supply for existing non-perennial and semi-perennial canals in the Multan and Muzaffargarh Districts, and in addition to extend irrigation in these districts.”

**SIND.—Lloyd (Sukkar) Barrage and Canals Construction Project.**—I am indebted to the Director of Information, Bombay, for the following brief account of the progress made during the quarter ended 31st March, 1931, together with a general summary of the work done during the previous three quarters :—

“ *Barrage Works.*—On the right bank, the top decking in gate-bridge spans Nos. 2 to 6 and road-bridge parapet and paving in Spans Nos. 6 to 14 were completed. The spandril masonry in gate-bridge spans Nos. 15 to 23 was raised from R.L.234 to R.L.238.5. Reinforcement in three road-bridge and

seven gate-bridge arches was laid and seven road-bridge and seven gate-bridge arches were cast in spans Nos. 24 to 31. Spandril filling in road-bridge spans Nos. 24 to 30 was completed and that in the gate-bridge spans was raised to R.L. 226. Seven gates and nine counterweights and gearings for five gates were erected and three gates and three counterweights were placed in position.

" On the left bank, the casting of gate-bridge arches in spans Nos. 33 to 41 was completed and cut stone parapets and footpaths of road-bridge were taken in hand. The spandril masonry of gate-bridge in spans Nos. 42 to 50 and the casting of road-bridge arches were completed. Six gates in spans Nos. 46 to 54 and 5 counterweights in spans Nos. 46 to 50 were erected.

" On the right bank, the excavation for the downstream concrete block apron and talus pitching of the head regulators of all the three canals was practically completed. One lakh cft. of pitching was completed in the head regulators of the Rice and Dadu Canals and eight hundred  $1\frac{1}{2}$  ton blocks were laid in the head regulator of the Rice Canal. The bottom, middle and top gates of the head regulator of the Rice Canal, the bottom gates of the head regulator of the Dadu Canal and the counterweights of the middle and the top gates of all the three head regulators were placed in position.

" On the left bank, good progress was made with the pitching in the bed and on the side slopes of the head regulators of the Eastern Nara and the Rohri Canal. The laying of cement concrete blocks in the head regulator of the Eastern Nara was completed. The middle and the bottom gates of all the head regulators were placed in position and about 60,000 cft. of cement concrete paving was completed. The work of laying cement concrete on the gate-bridge and the erection of top gates and gearing of the head regulator of the Eastern Nara were taken in hand.

" The dredging for foundations in both the right and the left bank cofferdams for divide walls and approach channels was completed and good progress was made with excavation by hand as also with pitching and superstructure masonry. The total quantities of work done during the quarter were as under:—

	<i>Right bank.</i>	<i>Left bank.</i>
Excavation by dredger ... ..	42·00 lakhs cft.	54·15 lakhs cft.
" " hand ... ..	43·00 "	50·36 "
Driving permanent piling ... ..	43,000 sq. ft.	52,528 sq. ft.
Cement concrete in foundation ... ..	0·53 lakh cft.	0·45 lakh cft.
Stone pitching ... ..	15·30 lakhs cft.	16·65 lakhs cft.
Superstructure masonry ... ..	1·16 "	1·06 "
Stones brought inside cofferdam ... ..	20·00 "	20·27 "

" Satisfactory progress was made with the excavation of earthwork in the head reaches of the Eastern Nara, the Khairpur Feeder East and the Rohri Canal coming within the boundaries of the Lloyd Barrage Circle, the total quantity excavated being 22 lakhs cft. Good progress was also made with the excavation of the Khairpur Feeder West. Large quantities of cut stone required for the barrage and a very large quantity of rubble limestone were quarried.

" The work done during the previous three quarters consisted of the completion of the 1929-30 season's work within the barrage cofferdam, the extraction of piling from the cofferdam and the construction of the divide wall cofferdams for the season 1930-31. The work on the superstructure of the barrage and head regulators was pushed on.

" The seven canal head regulators are now practically completed and it is expected that all underwater work on the divide walls will also be completed before the Abkalani of 1931. All underwater work in connection with the barrage proper has been completed and considerable progress made on the superstructure work and it is expected that the barrage will be ready to function early in 1932.

*Right Bank Works.*—" In the North-Western Circle the designs of the watercourses of all the distributaries and minors *ex* the Khirtar and Shahdadket branches and of four of the distributaries *ex* the Warah Branch were sanctioned. Satisfactory progress was made with the excavation of watercourses and also with the construction of regulators, falls, fall regulators and steel and masonry bridges. Good progress was made with the construction of syphons for the Mirwah and Mungirwah under the North Western Canal and the Begari syphon under the Khirtar Branch. Out of the 317 masonry structures to be constructed on main canals, branches, etc., 104 have been completed and 112 are in progress.

" The work done during the previous three quarters consisted of the survey and alignment of distributaries *ex* the main canals and branches, the acquisition of land, the excavation of main canals, branches and distributaries, the construction of steel and masonry bridges, regulators and other masonry structures.

" In the Western Circle the designs for about six hundred miles of main and branch watercourses and for minor channels *ex* the Dadu canal were completed. Good progress was made with the excavation of escapes at miles 90.7 and 122.1 of the Dadu Canal. The excavation of the Rice canal and the new cut for the Manchar drain and the widening of the Aral Manchar which is being utilised as the head portion of the Manchar drain from the lake to the new cut were continued. Two 30-B machines were employed on raising the banks of the Aral Manchar in the length which will be utilised as a feeder to the Manchar Lake, whilst two 50-B machines continued to work on the Manchar containing bank. The total quantity of earthwork completed on the Manchar drainage scheme both by machines and manual labour amounted to 281.28 lakhs cft. Repairs and extensions and improvements to the groyne at the lower Bhumb of the Gaj Nai and the bund across the Chhar Nai were taken in hand. Good progress was made with the construction of regulators and bridges. The total number of masonry structures to be constructed on main canals, branches, etc., is 323 of which 95 have been completed and 158 are in progress.

" The work done during the previous three quarters consisted of the preparation of fair plans and estimates for distributaries and minors *ex* the Dadu Canal, the preparation of a complete project for the Flood Protective Bund, preliminary investigations in connection with the alignments of watercourses, the excavation of main canals, branches, distributaries and minors both by machines and manual labour; the construction of groups of regulators, steel and masonry bridges, the excavation of the new cut to the Manchar drain and the taking of subsoil water observations.

*Left Bank Works.*—" In the Rohri Canal Circle, except for two channels, the survey and designs of channels were completed and their plans and estimates sanctioned. Good progress was made with the preparation of designs for watercourses and up to the end of the quarter designs for watercourses *ex* 199 channels had been sanctioned. Good progress was made with the excavation of earthwork both by machines and by manual labour and with the construction of regulators and bridges. Out of the 892 masonry structures to be constructed on main canals, branches, etc., 219 have been completed and 274 are in progress.

" The work done in the previous three quarters consisted of the preparation of designs for distributaries and minors, making investigations in connection with the alignment of watercourses, excavation of earthwork both by machines and manual labour, construction of buildings, groups of regulators, falls and fall regulators, and steel and masonry bridges, planting trees along canals and the acquisition of land.

" In the Eastern Nara Circle good progress was made with the work of nicking out the boundary trenches of the new distributaries and minors *ex* the Mithrao Canal. The survey and lining out of watercourses *ex* the Kandiyari and other minors were completed. The excavation of the Nara Cut and the

widening of the Nara itself was continued by two large Ruston Dragline excavators. Good progress was made with the excavation of earthwork by manual labour on the Mithrao Canal and its distributaries. The head portion of the Khipro Canal was completed and the remodelling of the Thar Canal and the excavation of the Shahu branch and its minors were nearing completion. Good progress was made with the excavation of watercourses, the quantity completed amounting to 241 lakhs cft. of earthwork. Good progress was also made with the construction of buildings, regulators and masonry bridges. Out of the 327 masonry structures to be constructed, 291 have been completed and the remaining 36 are in progress.

"The work done during the previous three quarters consisted of the preparation of designs for distributaries and minors, the excavation of earthwork of the Mithrao, the Khipro, the Thar and the Hiral Canal systems, the new cut to the Nara, the widening of the Nara and the construction of the containing and the flood protective banks, the acquisition of land, and the construction of groups of regulators, building and masonry bridges.

*General.*—"The total quantity of earthwork done, both by dragline excavators and manual labour, in the four canal circles up to the end of March, 1931, on the main canals, branches, distributaries and minors and the approximate total amount of earthwork remaining to be done to complete the work are :—

Name of Circle.	Work done in crores cft.	Work remaining to be done (excluding watercourses) in crores cft.	
North Western Circle ... ..	89·6	11·1	
Western Circle ... ..	85·7	5·2	
Rohri Canal Circle ... ..	208·5	31·2	
Eastern Nara Circle ... ..	95·9	30·0	
Total ... ..	479·7	77·5	

The total earthwork done is equivalent to the excavation of a channel 454 miles long, 200 feet wide and 10 feet deep. Out of the 46 dragline machines employed on the scheme four have completed their task and the remaining 42 are still in operation. The daily out-turn of these machines varies between one lakh cft. of earthwork for the largest and 13,000 cft. for the smallest machine. The total capacity of all the 46 machines put together is about 74 tons of earthwork excavated and dumped per minute on the basis of 5½ days of 24 hours per week which is equivalent to the labour of 32,000 coolies employed the whole year round or of nearly 77,000 coolies employed for the normal working season in Sind consisting of five months. The total length of main canals, branches, distributaries, minors, etc., as per the latest revised figures is 6,116 miles of which 4,500 miles have been completed.

"During the year about 2,944 acres of land were acquired at a cost of Rs.2,49,000, that is, at an average rate of Rs.84 per acre.

"The rectangulation survey of the area under the command of the canals of the scheme was completed by the Survey of India. The further sub-division is being carried out by the staff under the Revenue Officer of this scheme.

"The Research Division, which was opened on 1st October, 1930, and which is under the direct control of the Chief Engineer, was engaged on making subsoil investigations on both the banks of the River Indus with a view to ascertain how far the opening of the barrage canals would lead to water-logging. This Division was also engaged on the designs of regulators and bridges and on carrying out experiments on the models of designs for regulators, Hume pipe culverts, syphons, etc., with a view to checking the designs in the light of information obtained from the experiments.

"The total expenditure incurred on the project to end of March, 1931, amounted to Rs.15·01 crores."

**MADRAS. The Cauvery Mettur Project.**—The following note of the progress made during the past year in this project has been kindly supplied by the Engineer-in-Chief.

"*Expenditure.*—Expenditure during the year is about Rs.85 lakhs, the total expenditure up to date being Rs.426 lakhs.

"*Dam.*—Excavation is practically complete. . . . About 17 million cubic feet of masonry has been built to the end of March, 1931, out of a total of about 54 million cubic feet.

"*Towers and Crushers.*—Erection has been completed and the towers and crushers are working satisfactorily. Besides the concrete laid by the towers a considerable quantity of roughstone masonry is being built with mortar mixed by preliminary mixers.

"*Surplus works.*—The arches and the roadway over the regulator will be completed in about 4 months. Erection of shutters and construction of the rear apron is in progress.

"*Hydro Electric Installation.*—Four rows of pipes 8 ft. 6 in. dr. have been fixed for working the turbines for the proposed hydro electric scheme at Mettur. Erection of the front shutter grooves and screens is in progress.

"*Tools and Plant.*—The following is the list of additional items of machinery and plant, purchased during the year :—

Victoria Mixers	...	...	...	...	4
Sentinel Locos	...	...	...	...	4
Three cubic yard side Discharge Wagons	...				50

"*Canal System.*—Major portion of the work has been completed."

**BENGAL. Damodar Canal Irrigation Scheme.**—The officiating Chief Engineer of the Irrigation Department of the Government of Bengal has reported on the progress of the scheme as follows :—

"The progress on the Damodar Canal Irrigation Scheme has been good. The headworks are approaching completion and it is expected that the only important work that will remain to be done after the end of the current working season will be the actual breast wall of the weir plus a length of about 600 feet of concrete in floor and this will not take more than four months of the next working season.

"As regards the canal itself work has proceeded briskly and it is hoped that the canal may be partially opened for irrigation during the monsoon of 1932. The main canal except for those portions which are being excavated by the two dragline excavators is very nearly complete, similarly the distributaries of the Main Canal are nearly finished.

"Work is proceeding on the two main branches, *i.e.*, the Branch Canal and the distributary No. 6 and it is expected that it will be possible to supply water to 50,000 to 60,000 new acres as well as to the already established Eden Canal by the monsoon of 1932."

## 2. HARBOUR WORKS.

**Calcutta Port Extensions and Improvements.**—I am indebted to Mr. T. H. Elderton, Chairman, The Commissioners for the Port of Calcutta, for the following report on the developments during the past year :—

" At the end of 1929-30 the berths covered by the sanctioned estimate for the first portion of King George's Dock had been completed and both dry docks had been brought into commission. During 1929-30 all the accommodation in the Port including that in King George's Dock was at times fully occupied, and if traffic had continued to increase, the construction of additional berths would have been begun in 1930-31. The serious slump in trade, however, rendered any increase of accommodation unnecessary, and during 1930-31 the work done at King George's Dock consisted of finishing off jobs which had already been begun and of a certain amount of excavation work, enabling low-lying land in the neighbourhood to be raised and generally improved.

" *Kidderpore Docks.—New 80 ft. Lock Entrance.*—In last year's report Sir Charles Stuart-Williams expressed the hope that this important work would be completed within the financial year 1930-31, but this hope was not realised. Certain difficulties were experienced at the river end of the lock and although these difficulties were satisfactorily overcome they caused considerable delay to the work and it is quite possible that the lock will not be brought into commission until October or November this year.

" Of the other works carried out during the year the most important was the lighting of the river between Garden Reach and Uluberia to permit of ocean-going steamers navigating this section of the river by night. The work was completed during the year and the lighted channel is now being used. The use of Uluberia Reach as an anchorage combined with the lighted channel means that outward-bound ships which formerly had to cross certain bars in this section of the river at or near low water in order to reach the Eastern Gut at high water will now be able to cross these bars at high water and the bars will cease to be obstacles to the movement of ships. Apart from this work, no new capital work of any importance was carried out during the year, but progress was made with works of improvement previously begun such as the extension of the jetties at the Shalimar Coal Depots and the construction of the river training wall at Sankral."

**Bombay Port Trust Capital Works.**—The Secretary of the Bombay Port Trust has provided the following note on capital expenditure during 1930-31 :—

" In consequence of the world wide depression of trade, accentuated in Bombay by the disturbed political situation in India during 1930-31, the revenues of the Port were adversely affected and the Trustees had to curtail their revenue and capital expenditure to a bare minimum. The amount expended on capital works during 1930-31 was approximately Rs.12 lakhs against an original budget estimate of Rs.31 lakhs. The principal works executed during the year were as follows :—

1. Completion of a new transit shed at No. 16 berth, Alexandra Dock.
2. Further expenditure on deepening the Alexandra Dock Entrance Channel.
3. Electric installations and improved subsidiary arrangements at the Pir Pao Pipe Line to allow of the discharge of bulk petrol at night and to increase the discharge capacity from 320 to 350 tons per hour in the case of bulk kerosene oil and from 134 to 150 tons in the case of bulk petrol.

" No new loan was raised by the Trustees during the year, the expenditure being financed from loan balances in hand. No new borrowings have been effected since 1924-25 and the interval of 6 years since the last loan flotation constitutes a record in the financial history of the Trust."

**Karachi Port Capital Works and Improvements.**—Mr. H. A. L. French, the Acting Chairman of the Karachi Port Trust,



has kindly supplied the following information on the progress of the West Wharf and other Capital Works during the past year :—

*“ West Wharf Project.—*Two deep water berths complete with transit sheds and the necessary railway yards have been opened at the West Wharf and are working very successfully and economically. These berths are able to accommodate any steamer which can traverse the Suez Canal.

*“* They are equipped with the latest pattern 2-ton electric cranes which can deal very expeditiously with either imports or exports.

*“* A third deep water berth is completed and will be equipped with cranes and probably a transit shed when trade improves.

*“ Reclamation Work.—*The reclamation of an area of low-lying marshy ground to the south of the present Thole Produce Yard is in progress. The total area to be reclaimed is about 240 acres of which nearly 60 acres have been completed.

*“* This will enable the present stacking area of the Produce Yard to be increased by 75 per cent. within two or three years and ultimately more than doubled.

*“* The reclamation is being carried out by pumping ashore practically all material dredged from the Harbour.

*“ Fire Protection Thole Produce Yard.—*This scheme was completed early last year and has resulted in an almost total absence of fires since its execution.

*“* The Insurance Companies have accordingly reduced their rates of insurance for cotton stacked in this yard.

*“ Other Works.—*The only other capital work of any importance is the extension of a storm water channel across the reclaimed area behind the West Wharf. This scheme is designed to prevent flooding of adjoining municipal roads and to improve the sanitation of the neighbourhood. The work is costing about one and a-half lakhs and is nearly completed.”

**Harbour Developments in the Madras Presidency.**—The following note, which has been courteously supplied by Mr. R. C. Bristow, Harbour Engineer-in-Chief to the Government of Madras, shows the progress which has been made at Cochin and Tuticorin during 1930-31 :—

*“ Cochin.—*The dredger ‘ Lord Willingdon,’ after her usual overhaul, was engaged from 16th May to 25th July, in widening the Mattancherri channel and in dredging a berth for another temporary centre mooring, in addition to the seven moorings laid last year. The material removed was deposited in the already reclaimed areas at the southern end of the Venduruthy reclamation.

*“* The quantity of material removed was 334,095 cubic yards in 275 hours 47 minutes actual dredging time or an average of 1,211 cubic yards per hour.

*“* On completion of the above work, the dredger was put to work on the new turning basin in order to give more room for ships to turn at all states of the tides. On the 10th November, 1930, the first portion of the dredging in the basin was completed, when the dredger went into dry dock for the usual minor overhaul, before commencing maintenance work on the outer channel. The dredging of the remaining portion of the turning basin was, however, recommenced on 24th January, 1931, and completed on 4th March, 1931. The total quantity of material removed in the turning basin was 1,050,210 cubic yards and it was deposited within the area of 30 acres enclosed by a newly constructed reclamation wall on the western side of Venduruthy reclamation.”

*“* The maintenance dredging in the approach channel to the harbour commenced on 8th December, 1930, and carried on practically day and night until the work was completed on the morning of the 13th January, 1931. The length of the channel redredged over its entire width of 450 ft. was

14,550 ft. In addition, 450 ft. of the northern cut (150 ft. wide) was redredged. The quantity of material removed from the channel was 1,219,400 cubic yards, the average depth in the channel after this season's dredging being 36·5 ft. at L.W.O.S.T. As in the last season there was no interference to shipping while the dredging was in progress.

"On completion of the maintenance dredging, the dredger was engaged for a week in widening the channel at the harbour mouth in order to improve the flow of outgoing tide. The quantity removed from this position was 81,360 cubic yards in 136 hours 48 minutes or an average of 598 cubic yards per hour, the low rate being due to very hard nature of the material."

"One temporary mooring buoy was put down in the inner harbour, making 8 moorings in all.

"In order to frame reliable estimates for fourth stage works, estimates for trial holes and borings were approved by Government and the work was started at the close of the year.

"The behaviour of the approach channel during the monsoon of 1930 was consistent with the records of the last three monsoons and quite satisfactory. The depth was nowhere seriously reduced and there was no stoppage of traffic.

"The Harbour Engineer-in-Chief was engaged personally in the design of the fourth stage works including bridges, wharves, transit sheds, warehouses, offices and residences and good progress was made during the last four months of the financial year.

"*Tuticorin*.—The scheme for the construction of a deep water harbour at Tuticorin has been abandoned for the time being."

**The Port of Rangoon.**—I am indebted to Mr. J. A. Cherry, C.I.E., Chairman of the Commissioners for the Port of Rangoon, for the following note on the progress made in the Port during 1930-31 :—

"The trade of the Port remains generally satisfactory although in common with all other Indian Ports there is a reduced volume of traffic following the world depression in commodity prices and restriction of business. For the year ended 31st March, 1930, 1,640 steamers with an aggregate net tonnage of nearly 4½ millions entered the Port; the figures show an increase of 76 in number and over ½ million in net tonnage over the previous year. Of the total number of vessels entering the Port, 1,634 brought cargo for Rangoon and of this number 1,008 came alongside the Commissioners' wharves, pontoons and jetties to discharge.

"The sea-borne trade for the year ending 31st March, 1930, was 5·6 million tons (1929—5·38), of which 1·72 millions were imports (1929—1·59) and 3·87 millions were exports (1929—3·77). Preliminary figures for the year ended 31st March, 1931, are :—

						Millions.
Imports	...	...	...	...	...	1·55
Exports	...	...	...	...	...	3·67
						<hr/>
Total	...	...	...	...	...	5·22
						<hr/>

For the ensuing year the Commissioners have budgetted for a 20 per cent. fall in imports and, in view of the present civil disturbances in Burma, it would appear that this estimate will not prove to be unduly pessimistic. Inland traffic over the Commissioners' premises up to 31st March, 1930, showed very small decreases over the preceding year, while the rail-borne traffic registered a drop of some 50,000 tons for the same period.

"Progress during 1929-30 in connection with the development schemes for Port facilities was as follows :—

*“Wharves extension and reconstruction for sea-going vessels.*—Work continued in connection with the joining up of Sule Pagoda and Latter Street wharves by means of a ferro-concrete wharf. There was some delay to the work owing to the earthquake and communal riots in Rangoon in May, 1930, and the wharf was not completed until February, 1931, when it was formally opened by His Excellency Sir Charles Innes, K.C.S.I., C.I.E., I.C.S., Governor of Burma, in the presence of a large assembly representative of the various official and trading interests in Rangoon. The wharf is equipped with a double storey transit shed and six Babcock and Wilcox semi-portable 3-ton electric cranes. The transit shed is served by two electric cargo hoists and the wharf yard by a 10-ton transporter crane. On the completion of this berth, Sule Pagoda Wharf and Latter Street Wharf were renamed Sule Pagoda Wharves, and all the berths, shed and cargo gates renumbered.

*“Reconstruction and extension of Sule Pagoda Wharves.*—The survey of the underground condition of the site of the former Sule Pagoda Wharf and the proposed new line of wharf frontage has been continued and confirms the previous assumption that the foundation strata is in many places very unsatisfactory. The Commissioners' Chief Engineer in consultation with Sir Alexander Gibb and partners, the Commissioners' Consulting Engineers, is engaged on the preparation of designs for an immediate eastern extension of Sule Pagoda wharves and later for reconstructions of deteriorated berths.

*“Phayre Street Passenger Station.*—The construction of a Passenger Station at Phayre Street was undertaken owing to the necessity of providing alternative accommodation to that afforded by the two Barr Street Passenger Jetties which had had to be closed to traffic and removed to enable work to proceed in connection with the investigation of the site for the eastern extension of Sule Pagoda wharves. It is proposed at a later date to replace this Passenger Depot with a pucca structure which will be designed to harmonise with the Commissioners' Offices and to form the central feature of the garden layout of the river bank in that vicinity.

*“Railway Facilities.*—The improvement of the present facilities for rail-borne traffic to and from the Commissioners' premises continues in accordance with the Port Development Proposals adopted in 1925, and in addition to the four acres of Commissioners' land at Keighly Street which was cleared and transferred to the Burma Railways in exchange for the land comprised in the former Latter Street railway station, and now included in wharf enclosures, the Burma Railways have made over to the Commissioners an area of land at Botatoung as part of the major transaction, and this has enabled a much needed improvement in the Commissioners' workshop layout to be put in hand.

*“Workshop Extensions.*—During the year 1930, the Commissioners sanctioned expenditure for the re-layout and modernisation of their main workshops. The project includes the erection of new buildings, the replacement of obsolete machinery and the renewal of electrical power plant.

*“Lighting of Port Approaches.*—Consequent on the transfer to the Commissioners as from 1st April, 1929, of the responsibility for lighting the approaches to the Port of Rangoon, a scheme has been evolved for the maintenance of the three light stations, viz., China Bakir, Spit and Eastern Grove, with modern unattended Aga lightships on the China Bakir and Spit Stations and lighting apparatus at the Eastern Grove lighthouse. Expenditure of over Rs.5 lakhs is involved in the provision of three new light-vessels which are nearing completion in England and the necessary conversion set for Eastern Grove. The scheme includes the erection of a Wireless Rotating Loop Beacon on the coast about 12 miles from Elephant Point. This beacon will be the first of its kind to be erected in India and it follows closely the design of that developed at Orfordness by the Air Ministry and possesses the advantage that it can be used without the aid of direction finder apparatus on board ships. All that is needed is the ordinary wireless gear and a reliable stop watch. By

the introduction of this modern equipment for lighting and making known the approaches to the Port of Rangoon substantial savings are expected on the expenditure now incurred.

*" New Survey Launch.*—The Commissioners recently placed an order for a new sea-going survey vessel fitted with Echo sounding gear and capable of remaining away from her base for sufficiently long periods to carry out surveys of the sea approaches to the Port. As a result of the advance of the Irrawaddy Delta towards the sea, there is a marked tendency towards shoaling at the head of the Gulf of Martaban and this is more particularly noticeable in the deterioration of the Outer Bar at the mouth of the Rangoon River. The problem of the deterioration of the ship channels across the Outer Bar is receiving the attention of the Commissioners' Consulting Engineers, and proposals for remedial measures will be brought before the Commissioners at an early date.

*" New sea-going tug and pilot tender.*—Tenders have been received and a contract will shortly be placed for the construction of a new sea-going tug at a cost of some Rs.5½ lakhs to replace the existing vessel which has reached the end of her economic life.

*" Hydrometric Survey.*—In conjunction with the Public Works Department, Government of Burma, the Commissioners are engaged on a Hydrometric Survey of the Rangoon river system estimated to cost Rs.1,45,619 for that part of the work being carried out by the Commissioners. The work consists in the determination of the discharges of both water and silt into the Rangoon Harbour at various seasons. The survey required a good deal of preliminary work and training of staff and the first series of field observations were actually made in April, 1930. Observing stations are situated as far as 60 miles from Rangoon and the periodical field observations continue over an uninterrupted period of 24 hours. The computations involved in the extraction of results occupy the staff in the intervals between field work.

*" General.*—The reconstruction and extension of the wharf system remains the dominating feature of Port improvement, but a problem which is of great importance is the deterioration of the channels across the Outer Bar above referred to. In view of the prevailing trade depression and the difficulty of raising and providing for the service of capital money, the Commissioners have restricted work under this head to projects of an urgent or essential nature.

*" Traffic figures for the year ended 31st March, 1931, are not yet in final form. In respect of tonnage handled over the Commissioners' premises, the results show a fall of 100,000 tons in imports, or about 10 per cent. over the preceding year; exports, a drop of about 33,000 tons; on landings of river-borne traffic a return of 437,000 tons shows a drop of nearly 20 per cent. on the previous year's total and river-borne shipments at 297,000 tons show a drop of 32,000 tons. The grand total of traffic over the Commissioners' premises is 3.3 million tons as against 3.5 million tons in the preceding year. As regards shipping 1,611 steamers with a net tonnage of 4,406,276 entered the Port as against 1,640 steamers with a net tonnage of 4,489,776 during the previous year."*

**Vizagapatam Harbour.**—Mr. W. C. Ash, Engineer-in-Chief, Vizagapatam Harbour Construction, has very kindly supplied the following note on the progress of the Scheme during last year :—

*" In so far as the present trade is concerned the conditions have been greatly modified during the last year as a result of the progress made in dredging. Cargo was, up to November, 1930, conveyed between ships and shore by means of surf boats of about 2-ton capacity, but by that date the crest of the sand bar had been removed and a draft of about 15 ft. at low water obtained. Arrangements had been made, in anticipation of this step, for a fleet of 50-ton lighters to be in readiness and the transit sheds and railway*

and other facilities at the quays, subsequently to be used by ocean-going ships, were completed. These features are, therefore, now in full use and the surf boats have been dispensed with. The lighters have to traverse the channel in which dredging operations, for deepening and widening it, are in full swing, but this is managed without interruption to traffic.

"Dredging has mainly been carried out in the channel, though additional deep-water areas have also been provided in the vicinity of the quays. Extensive areas have been reclaimed in the past year mainly on the Eastern side of the Harbour, adjacent to the town of Vizagapatam and the road system has been well advanced. Portions of these areas have been laid out as office plots and other zones are being prepared for manganese ore dumps, quarters, warehouses, industrial plots, etc.

"A third storage shed, to provide for the expansion of trade, is approaching completion. It will temporarily be served by a lighter canal and will be provided with railway facilities similar to those at the other sheds.

"The graving dock is at present being utilised for the large suction dredger 'Vizagapatam' and other dredging craft and the question of its adaptation for merchant vessels will be taken up when the need arises.

"The completion of the Raipur-Vizianagram line is expected by 1932, and this will provide a direct connection between Vizagapatam and the Central Provinces. The date by which ships will be able to enter the harbour will depend on the progress made on the dredging of the channel and work is being planned with a view to the utilisation of the harbour by the end of 1932."

**Port of Chittagong.**—The following note on the improvements made in the Port during 1929-30 and 1930-31 has been received from the Secretary to the Port Commissioners, Chittagong, to whom I am indebted :—

"The Port of Chittagong records various activities towards improvements during the years 1929-30 and 1930-31.

"The average depth of 14 feet at low water has been maintained on the bars with the ordinary working hours of the dredger 'Patunga.'

"The number of ships detained on account of insufficient water was 3 during 1929-30, and 7 during 1930-31.

"The following works constitute the River Training Scheme adopted by the Port Commissioners during the two years :—

(1) The extension of Cutting Bend Revetment to Gupta Point over a length of 2,000 lineal feet. The work was completed in the year 1929-30.

(2) An amended scheme of River Improvement Works as approved by the Consulting Engineers received Government sanction in July, 1929, as follows :—

	Rs.
(a) Revetment along right bank at Patunga ... ..	13,23,000
(b) A stone apron across Juldia Channel, estimated cost ...	10,27,000
	23,50,000

(a) The work of Patunga Revetment was commenced in November, 1929, and had almost attained its completion at the close of the year 1930-31.

(b) A preliminary investigation in connection with the Juldia Channel was only carried out at the close of the year 1930-31.

(3) Government sanction was also received in February, 1931, for revetment along the left bank of the Karnafuli River at Kolagaon over a length of 4,000 lineal feet at an estimated cost of Rs.1,81,500. The work was commenced in the last week of March, 1931.

"The following are the works done and considered by the Port Commissioners towards lighting arrangements in the course of the two years :—

- (1) Government sanction has been obtained for an improved light to be installed at Kutubdia at a cost of Rs.8800/-.
- (2) The Juldia Light has been transferred to Patunga Point.
- (3) A scheme of night lighting of the river is also under contemplation."

### 3. HYDRO-ELECTRIC SCHEMES.

**The Punjab Hydro-Electric Scheme, known as the Uhl River Project.**—Progress on this Scheme continued throughout the year. A series of informative articles, illustrated by photographs relative to the progress of the Scheme, which were published in the "Civil and Military Gazette" at the end of the year 1930, have been reprinted in booklet form. A copy of the booklet, together with copies of the four quarterly progress reports submitted to the Punjab Government during the year 1930-31, are on file in the Department of Overseas Trade, London, where they may be consulted by interested firms.

**Hydro-Electric Developments in the Madras Presidency.**—Mr. H. G. Howard, the Chief Engineer, Hydro-Electric Department of the Government of Madras, has very courteously supplied the following note on the developments during 1930-31 :—

"*Pykara Scheme.*—Work on the construction of the Pykara Scheme constituted the main activity of the Hydro-Electric Development Department in Madras during the year. In the note for last year it was mentioned that the Scheme was sanctioned by the Secretary of State for India in September, 1929, and details of the plant and equipment were given. Construction work was in full swing by the middle of the year under report and steady progress has been maintained.

"The Civil Engineering Works have reached an advanced state of completion and the pipe line and surge tank are being erected.

"Orders for penstocks, power house machinery and transmission line and sub-station equipment were placed during the year. In view of the importance of the contracts, the Chief Engineer was deputed to England in June, 1930, to select the machinery and place orders. Plant to the value of about Rs.30 lakhs was then ordered. The majority of the equipment including gates, valves, pipe line, generators, transformers, switchgear, transmission line and sub-station material will be of British manufacture. In value, about 70 per cent. of the orders placed at the time went to England and the rest abroad.

"The materials are beginning to arrive and will be erected in 1931-32.

"A metre gauge inclined haulage way, about 10,000 feet long, is being erected along the hill slope to convey men and material between the head-works and the power house and will be completed before June, 1931.

"Preliminary work is proceeding on the power house building, transmission line routing and substation buildings.

"From the progress made so far, it is expected that the scheme will be completed at the scheduled time, *i.e.*, end of 1932 and within the estimated cost.

"Power is expected to be distributed mainly in the Coimbatore District at the outset.

"The rates for power contemplated are attractive and the advantage of the District, such as a favourable climate, cheap and abundant supply of satisfactory labour, good water supply and railway communications, cheap

factory sites, etc., should appeal to industrialists wishing to establish factories for the manufacture of articles from the raw products of the district such as cotton, ground nuts, etc.

*"Glen Morgan Scheme.*—This Scheme, originally intended for the supply of power for the construction works at Pykara, was completed in November, 1929, and has been in continuous operation since. A maximum of 1,650 h.p. is available from the plant and the surplus after meeting the needs of the Pykara Construction Works, is sold to the Municipalities of Ootacamund and Coonoor and a few tea estates nearby. The revenue derived from this sale is substantial and the small Scheme considered independently is already yielding a very good return on the investment.

*"Mettur-Erode-Salem Scheme.*—Sanction was accorded to this Scheme in April, 1930, for Rs.5.5 lakhs and it was hoped to give electric supply to the towns of Salem and Erode within a year, but due to various causes, construction was held up and it was not until September, 1930, that contracts for the construction of the transmission lines and substations could be let. Messrs. Callender's Cable and Construction Co. are the contractors and work is proceeding. Supply to the towns is expected to be given before September, 1931.

*"Investigation Work.*—Investigation of possible power sites with a view to future developments continued at three places ; Kolab, Kumbar and Periyar.

"A first-class scheme is feasible at Kolab, about 100 miles from the port of Vizagapatam, but the present demand for power in the neighbouring area is poor. It is considered economically unsound to develop the site only for the immediate demand and it is estimated that a minimum load of 8,000 k.w. increasing to 24,000 k.w. in ten years is necessary before any satisfactory scheme is possible. The prospects of obtaining this load are bright. The country round about is rich in potential wealth in the way of minerals and timber, and the extension of the Bengal Nagpur Railway to Raipur in the Central Provinces and the opening of the fine harbour at Vizagapatam are expected to lead to big industrial developments. These will need cheap power and this could be available at Kolab. Enquiries from capitalists and industrialists interested in developing the natural resources of the area will receive the careful attention of the Hydro-Electric Department of the Government of Madras.

"Hydro-metric studies are being continued at a number of possible power sites."

**Ceylon Electrical Developments during 1930-31.**—The Director of Electrical Undertakings to the Government of Ceylon has very kindly supplied the subjoined note on developments during the past year :—

"A further five static sub-stations have been erected and equipment installed. Plant extensions include a 500 k.w. frequency changer and a 250 k.w. rotary converter.

"The development of the 400-230 volt cycle 3-phase distribution has been pushed forward as rapidly as possible to replace the old 100 volt single phase system, and to extend supply into new areas over 38 miles of underground and overhead mains have been or are being erected and put into service.

"A large number of new consumers were connected and a considerable power load obtained on the three phase supply, the increase of load being such as will necessitate the addition of new generating plant for the Stanley Power Station at a very early date if the growing demand for electric power for all purposes is to be met.

"The Stanley Power Station was put out of action by abnormal floods in May, 1930, the damage done being so extensive that supply from this station was entirely cut off for a period of 16 days, and supply had to be restricted

until October. This caused a severe set-back to the development of load during 1930, which is, however, being made up in 1931.

"The universal trade depression may have some effect in slowing development for a time, but so far the progress made has been very satisfactory. There seems to be a very good prospect for the electrical trade, particularly for lighting, both in Colombo and in small towns near Colombo supplied from the E. H. T. mains now being extended by Government from the Stanley Power Station to supply distribution systems established by various local authorities north and south of Colombo.

"A large quantity of material for the northern and southern transmission lines and extensions thereto, including transformers and sub-station equipment, were imported through the Crown Agents for the Colonies. Materials for further extension this year have already been ordered and a further extension is proposed for next year. This will be similarly dealt with through the Crown Agents.

"Materials required for small town schemes, of which several are being done each year, and which include engines, alternators, switchgear and distribution line material, are tendered for locally and the materials for such installations are imported by the agents in Ceylon of well-known manufacturing firms. In the same manner the materials required for the electrical wiring of Government buildings in out-stations are imported by local contractors.

"A large quantity of stores for electrical maintenance and general work are imported annually. These are obtained by special indents through the Crown Agents, but small quantities urgently required are obtained locally through the Colonial Storekeeper from local firms importing materials from accredited manufacturing firms.

"A large amount of material and equipment will be required for the electrification of the new Railway Workshops at Ratmalana, including cables, transformers, etc. These will be indented for by the railway through the Crown Agents for the Colonies.

"The question of proceeding with the Hydro-Electric Scheme in the Aberdeen-Laxapana valley was shelved pending the election of the new State Council. No definite statement can be made as to the date when the question of reconsidering the scheme will be brought up."

#### 4. OTHER WORKS.

**The Calcutta Chord Railway and the Bally Bridge.**—The Engineer-in-Chief, Calcutta Chord Railway, has very kindly supplied the following note showing the progress made during 1930-31 :—

"The construction of the Calcutta Chord Railway has progressed during the year 1930-31 very satisfactorily and before the close of the current year it is expected that the project will be completed giving then through connection between the Bengal coalfields and the new King George's Docks, connection between the East Indian and the Eastern Bengal Railways and also road connection from one side of the Hooghly to the other—from Bally to Barnagore—which will be an additional crossing for road traffic to the only present connection over the Howrah Bridge.

"The erection of the spans of the Bally Bridge that had to be floated from the erection staging to the various piers has been completed and there remains only the erection of two spans which, once erected, will remain in position.

"The approaches to the bridge covering a distance of about 4 miles of double track on each side of the river have been completed and in fact girder erection of the minor bridges over roads, canals, etc., in these 8 miles of approaches has already commenced, there being only two of these bridges, *i.e.*, those over the East Indian and Eastern Bengal Railways main lines that remain to be completed."



**Bombay Development Schemes.**—The following information has been courteously supplied by Mr. J. F. Gennings, the Director of Information to the Government of Bombay :—

*“ Back Bay Reclamation Scheme.*—The following important works in connection with the scheme were undertaken during the year 1930-31 :—

Name of works.	Approximate amount spent during 1930-31. Rs.
1. Construction of a parapet wall along the sea wall in blocks 1 and 2 ... ..	80,081
2. (i) Dry filling to complete block 1 ... ..	60,805
(ii) Dry filling to complete block 2 ... ..	3,51,015
(iii) Dry filling block 7 ... ..	2,53,768
3. Grassing the recreation grounds in block 1 ... ..	22,025

“ Total expenditure incurred during 1930-31 on original works pertaining to the project amounts to Rs.8·38 lakhs approximately, against the budget provision of Rs.15·54 lakhs, The provision for works on the schemes made for 1931-32 is Rs.1·91 lakhs. In view of the present financial situation the construction of the proposed roads in the reclamation area has been postponed for the present. The provision for expenditure on roads during 1931-32 has been restricted to the cost of lining out and kerbing only.

*“ Industrial Housing Scheme.*—The works carried out during 1930-31 in connection with the Industrial Housing Scheme related to minor alterations in the development chawls necessary to suit the convenience of the bodies or persons who were provided with accommodation in the chawls.

*“ Suburban Development Schemes.*—The works in the Suburban Development Schemes related to minor developments such as filling in of plots, road construction and lighting of roads in the land schemes of the late Development Department and small extensions of pipe lines in the Salsette and Ambernath Water-Supply Schemes. The expenditure incurred on these works under “ 42-Bombay Development Scheme ” during 1930-31 amounted to about Rs.58,600.

*“ Juhu Aerodrome.*—The work relating to the preparation of the aerodrome site at Juhu estimated at Rs.8,57,441 was undertaken by this Department on behalf of the Government of India. The entire work is to be completed by the 15th May, 1932. The expenditure actually incurred on the project up to the end of April, 1931, amounts to Rs.1,88,000.”

**The Howrah Bridge.**—The following information has been kindly supplied by Mr. T. H. Elderton, Chairman, The Commissioners for the Port of Calcutta :—

“ No decision was arrived at during the year regarding the construction of a new Howrah Bridge. Reports and preliminary estimates for a floating bridge and also for a cantilever bridge were forwarded by the Port Commissioners as Bridge Commissioners to the Government of Bengal during 1929-30, but Government decided to re-open the question whether a bridge on piers would be injurious to the river. A committee was appointed to consider the matter, but the report of this Committee has not yet been published.”

**Rangoon Water Supply Scheme.**—In my report for the year 1927-28, I referred to schemes at that time under investigation for increasing the water supply of Rangoon. Although a certain scheme was recommended for adoption, nothing further was done

at the time due to the fact that steps had been taken to combat the inadequacy of the existing supply.

Further surveys have taken place since that date and Mr. A. E. Mann, the Chief Engineer of the Corporation, has recently submitted a revised scheme known as the "Hlawga Low Level Lake Scheme" to the Corporation. This scheme has been examined by Messrs. Williams & Temple, Consulting Engineers, Calcutta, whose conclusions, summarised, are :—

(a) The site for an impounding reservoir proposed by Mr. Mann is suitable for the purpose. The geological formation under the proposed lake is favourable as regards watertightness, and good material exists on the spot for the construction of a dam.

(b) The estimated run-off based on a series of 5 consecutive dry years is sufficient for a supply of 23·2 million gallons per day. This quantity according to Mr. Mann's estimate of the increase of population and the *per capita* consumption (which we believe to be probably on the safe side) will be sufficient for Rangoon until the year 1960 when it will, if the increase expected takes place, be necessary to augment the supply by pumping from the Pazundaung Creek or elsewhere, or by obtaining a supply from another catchment.

(c) The lake will be comparatively shallow and there will probably be more vegetable matter in it than in the existing Hlawga lake. Whilst it is not likely to be sufficient seriously to affect the quality of the water, filtration would appear essential.

(d) It will be advisable not to draw the lake down below 5 feet from the bottom. The storage above this level in the intended reservoir will be more than sufficient for the supply stated above. This appears satisfactory and the capacity proposed should remain unaltered.

(e) The overflow weir of the lake should be 600 feet long. To prevent any possibility of over-topping, if a heavy rainstorm should coincide with a high wind, there should be a laterite rubble wall about 2 feet high along the inside of the top of the dam.

(f) The present method of supplying Rangoon by the system of a high pressure supply between 4 p.m. and 8 a.m. and a low pressure supply between 8 a.m. and 4 p.m. will continue, and the filters are to be put at a level which will allow the filter water to gravitate to Rangoon during the latter hours.

(g) In the first instance the works should be made capable of supplying 17 million gallons per day, which is estimated to be sufficient until the year 1946. Additions will then be required to the pumps, filters and tanks which will enable the full supply of 23·2 million gallons per day to be given.

(h) The cost of the initial portion of the scheme with electrically driven pumps may be estimated at Rs.149,98,000, and, with the additions necessary to give the full supply, Rs.158,03,000. The recurring charges, on the assumption that the loan for the works will be obtained at 6 per cent. repayable in 30 years, will be 3·88 annas per 1,000 gallons for the initial scheme and 3·23 annas for the full supply.

(i) The cost of alternative schemes for pumping by steam or oil engines are shown in Appendix 5. The possibility of placing the filtered water engines at Yegu and constructing the main from the head works at Yegu as a reinforced concrete gravity main has also been considered. For the present no reason is seen to recommend departing from the proposal to pump by electricity, but the other alternatives can be reconsidered at a later stage.

The following extract is taken from the report of the Consulting Engineers whose conclusions are summarised above :—

"The reasons that have led us to the above conclusions (and others set forth more particularly therein) are explained in the foregoing report. We must, however, make it clear that although we have investigated the project

as completely as we can with the information now available, it is not possible that at this stage our recommendations should be in all respects final. The details of a scheme of this magnitude must necessarily undergo considerable modification as it proceeds through its successive stages. We are, however, satisfied that the project put forward by Mr. Mann is in its main features sound, that it will supply sufficient water for Rangoon for the next 25 to 30 years at a not excessive cost. We have not had the opportunity of investigating any of the alternative projects that have been worked out, but if the estimates in the reports are to be accepted, they are more expensive than the scheme we have been considering. We do not, therefore, think that the Corporation of Rangoon need have any hesitation in proceeding with it as early as possible."

The scheme came up for consideration at a meeting of the Corporation at the beginning of August, 1931, when it was resolved :—

" That the Chief Engineer be asked to prepare his final report on the scheme with necessary details without prejudice to these reports being considered at a later date."

A copy of the report of the Chief Engineer to the Rangoon Corporation on the " Hlawga Low Level Lake Scheme " and a copy of the report of the Consulting Engineers are on file in the Department of Overseas Trade, London, where they may be consulted by United Kingdom firms interested.

## CHAPTER VI.

### DETAILED EXAMINATION OF THE LEADING IMPORT TRADES WITH SPECIAL REFERENCE TO CHANGES IN THE CHARACTER, VOLUME AND ORIGIN OF THE IMPORTS DURING THE FISCAL YEAR APRIL 1st, 1930, TO MARCH 31st, 1931\*.

*NOTE.*—Unless otherwise stated, the statistics in this section are drawn from the publications of the Department of Statistics, Government of India, and relate to imports on private account only. Since all Indian statistics are now given in rupees and not in sterling, and in view of the labour which would be involved in converting into sterling, the lakh of rupees (Rs.100,000 or £7,500 at 1s. 6d. exchange) has been taken as the usual unit. It is fully realised that this is not so convenient a unit as the £ sterling.

#### MANUFACTURED AND MAINLY MANUFACTURED GOODS.

**Cotton Textiles.**—*Yarns.*—As a result of the combined effect of the severe economic depression and the general boycott of foreign textiles, the total imports of cotton twist and yarns fell from 43,882,041 lbs. valued at Rs.600 lakhs in 1929/30 to 29,139,915 lbs. valued at Rs.308 lakhs in 1930/31. Early in the year, the members of the Bombay Millowners' Association agreed to discontinue the

\* A summary of later statistics will be found in "A Survey of the Import Trade of India during the six months 1st April to 30th September, 1931," copies of which may be had by interested firms on application to the Department of Overseas Trade, 35, Old Queen Street, S.W. (Ref. C. 3765).

practice of using foreign yarns of types which could be manufactured in India and to cease the importation of all except artificial silk and mercerised yarns. The Ahmedabad Millowners' Association went one step further and practically all the mills in Gujerat stopped the use of imported cotton and artificial silk yarn and are now producing cloth only from yarns spun in India. This movement, synchronising with intense depression and political agitation in the handloom weaving districts, brought about a slump in the imported yarn market which is unprecedented.

The following table gives the imports of grey yarns arranged according to counts:—

Counts.				1929-30	1930-31
				lbs.	lbs.
Nos.	1 to 10	...	...	113,280	Nil
"	11 to 20	...	...	693,126	262,797
"	21 to 30	...	...	393,919	235,887
"	31 to 40	...	...	15,512,070	13,131,328
	Above 40's	...	...	7,195,859	3,094,016
	Two folds	...	...	4,612,442	3,173,490
Total imports (grey)...				28,520,696	19,897,518

It will be noted that the reduction is most severe in 11's to 20's—this probably reflecting conditions among the handloom weavers—and in 40's and above, which were formerly largely used both by the mills and by handlooms. The falling-off in 11's to 20's has been entirely borne by the United Kingdom. The United Kingdom supplied practically all the imports of 21's to 30's. In the range from 31's to 40's (which are largely 32's and 40's) imports from the United Kingdom fell by nearly 2 million lbs. and those from Japan by nearly 700,000 lbs. Other countries (mainly China), on the other hand, increased their share by 159,000 lbs. Counts above 40's were almost solely drawn from the United Kingdom spinners who, accordingly, lost over Rs.73 lakhs worth of business. Imports of United Kingdom twofolds fell from 1,176,093 lbs. to 808,565 lbs., Japanese from 2,043,017 lbs. to 825,702 lbs., whereas other countries (mainly China) actually increased their shipments from 1,393,332 lbs. to 1,539,223 lbs. The reduction in the imports from Japan is noteworthy but has probably been made good by the substitution of twofolds manufactured in the Chinese mills under Japanese ownership.

The next table sets forth the details of the imports of bleached yarns:—

Counts.				1929-30	1930-31
				lbs.	lbs.
Nos.	1 to 20	...	...	2,606	1,290
"	21 to 30	...	...	62,974	13,383
"	31 to 40	...	...	1,612,602	946,167
	Above 40's	...	...	1,321,509	865,014
	Twofolds	...	...	2,279,513	2,148,661
Total imports (white)				5,279,204	3,974,515

The heavy decline in 31's to 40's was entirely borne by United Kingdom spinners, their shipments being reduced from 1,556,102 lbs. to 928,639 lbs. Similarly, in counts above 40's their share fell from 1,289,509 lbs. to 824,854 lbs. Imports of United Kingdom bleached twofolds were, on the other hand, well maintained, declining only slightly from 1,791,244 lbs. to 1,749,522 lbs. Imports of Japanese twofolds dropped from 467,227 lbs. to 390,825 lbs.

Coloured yarns were imported as follows :—

Counts.				1929-30 lbs.	1930-31 lbs.
Nos.	1 to 20	...	...	216,703	185,335
"	21 to 30	...	...	230,858	228,893
"	31 to 40	...	...	2,922,923	677,616
Above 40's	...	...	...	455,672	283,331
Twofolds	...	...	...	499,452	356,372
Total imports (coloured)				4,325,608	1,731,547

The United Kingdom supplied all the coloured yarns below 31's. In the range of 31's to 40's, its aggregate export fell from 1,661,759 lbs. to 565,954 lbs., while supplies from other countries (mainly Switzerland, Italy and Germany) fell sharply from 1,208,764 lbs. to 107,662 lbs. Counts above 40's and twofolds were almost entirely drawn from the United Kingdom.

Imports of mercerised yarns are almost exclusively confined to twofolds, the total arrivals of which fell from 5,661,749 lbs. to 3,489,235 lbs. The Japanese practically control this trade and their shipments fell from 5,371,430 lbs. to 3,420,352 lbs. The United Kingdom share fell from 288,209 lbs. to 68,799 lbs.

The sources of supply of yarns of all kinds were as follows :—

Principal countries of consignment.	1929-30		1930-31	
	lbs.	Rs. (lakhs)	lbs.	Rs. (lakhs)
United Kingdom	20,111,892	2,96	10,314,913	1,27
Netherlands	35,844	$\frac{1}{2}$	15,015	$\frac{1}{2}$
Switzerland	694,410	10	73,600	1
Italy	1,428,840	16 $\frac{1}{2}$	64,435	$\frac{3}{4}$
China (including Hongkong)	10,574,713	1,11	11,743,238	96
Japan	10,870,160	1,64	6,894,903	83
Other countries	166,182	2	33,811	—
Total	43,882,041	6,00	29,139,915	3,08

It is clear that United Kingdom yarns have borne the major share of the reduction, as might be expected in view of the greater intensity of the boycott directed against them. Japanese spinners also suffered severely but have generally maintained the shipments

from their mills in China. It will be noted that the weight of yarn imported from China actually increased, but there was a drop in values due to lower prices.

*Indian Yarn Production.*—The imports of cotton yarns, however, provide merely a fraction of the demands of the country, which are increasingly being met by the Indian mills.

	Imports in lbs. (1,000)	Indian mills. Production in lbs. (1,000)
Annual average for the 5 years—1909-10 to 1913-14 ... ..	41,794	646,757
1913-14 (pre-war year) ... ..	44,171	682,777
1927-28 ... ..	52,345	808,940
1928-29 ... ..	43,766	648,296
1929-30 ... ..	43,882	833,560
1930-31 ... ..	29,140	867,045

The next table compares by counts the quantities of imported cotton twist and yarn with the quantities produced in Indian mills:—

	1913-14 (pre-war year)		1927-28		1928-29		1929-30		1930-31	
	Imports.	Pro- duction.	Imports.	Pro- duction.	Imports.	Pro- duction.	Imports.	Pro- duction.	Imports.	Pro- duction.
	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)
Cotton twist and yarn—										
Nos. 1 to 20 ... ..	1,254	492,693	2,465	494,800	1,098	382,024	1,047	493,382	454	513,739
„ 21 to 25 ... ..	896	123,995	416	182,235	548	140,175	290	181,245	251	166,110
„ 26 to 30 ... ..	3,686	42,999	439	80,836	223	72,838	395	90,579	227	93,345
„ 31 to 40 ... ..	23,657	19,712	27,305	33,757	19,937	37,488	20,050	46,365	14,755	60,747
Above No. 40 ... ..	7,859	2,699	8,040	11,142	9,331	10,029	9,013	15,279	4,273	27,311
Two-folds (doubles) ... ..	—	—	13,633	—	12,604	—	13,053	—	9,170	—
Unspecified descriptions and waste	6,819	679	47	6,170	25	5,742	34	6,710	10	5,793
Total ... ..	44,171	682,777	52,345	808,940	43,766	648,296	43,882	833,560	29,140	867,045

It will be remarked that just under 90 per cent. of the total Indian mill production is still in counts below 31's (mainly in 20's, 21's, 22's, 24's and 30's). A slow tendency towards finer spinning has been evident for some years. This has received a decided impetus during the past year. The production of 31's to 40's rose from 46 to 60,000,000 lbs., while production of yarn above 40's nearly doubled from 15 to 27,000,000 lbs. Generally speaking, the Indian mills are likely to continue the production of those counts which can be spun from Indian cotton. The Indian Tariff Board expressed the opinion that little if any cotton grown in India was suitable for spinning twist finer than 36's or weft yarn finer than 40's and that about 19 per cent. of the Indian crop was suitable for spinning twist from 30's to 36's and weft from 34's to 40's. The past year, however, has witnessed a very great expansion in the imports both of American and particularly Egyptian cotton. Imports from the U.S.A. rose from 1,689 to 9,756 tons and those from Egypt from 511 to 21,343 tons. The more recent heavy fall in raw cotton prices and consequent reduction of the parity between the prices of American and Indian cottons is likely to give a further stimulus to the imports of American and Egyptian cotton and also to the spinning of finer counts. Ahmedabad has recently led the way in this connection. In 1930/31 no less than 20 per cent. of the total production of the Ahmedabad mills was in counts above 30's and 8 per cent. in counts above 40's. The production of yarns above 40's rose from 6 to 10,500,000 lbs. last year. The newer mills in Ahmedabad are being equipped with the most modern high draught, tape driven, ring frames purchased from Lancashire textile machinists at the very low prices now ruling. Four new mills were started in Ahmedabad during the year and a further five cotton spinning companies have been registered since March, 1931.

The Bombay Millowners' Association in their report for 1930 state that "yarn markets showed a continuous decline, and the offtake was also unsatisfactory. The steadiness of cotton in September and October gave some confidence to the market, but with the decline that set in in cotton, yarn markets also became demoralised once again, and demand tapered off. The price of 10's and 20's yarns were 8 annas and 10 annas 9 pies a lb. respectively at the beginning of the year, and these continuously declined until prices at the end of the year touched their lowest level, viz., 5 annas 9 pies and 7 annas 6 pies respectively."

*Piecegoods.*—The following table shows the *quantities* of the three main classes of piecegoods imported during the last pre-war year and during the past four years:—



Year.					Grey (unbleached)	White (bleached)	Coloured, printed or dyed.
					(All in million yards)		
1913-14	...	...	...	...	1,534·2	793·3	831·8
1927-28	...	...	...	...	875·5	556·5	504·8
1928-29	...	...	...	...	838·6	554·1	506·9
1929-30	...	...	...	...	925·5	473·6	483·5
1930-31	...	...	...	...	365·0	271·6	245·7

The next statement gives the *values* of the three main classes in the last pre-war year and during the past four years :—

Year.					Grey (unbleached)	White (bleached)	Coloured, printed or dyed.
					£	£	£
*1913-14	...	...	...	...	16,966,515	9,523,204	11,907,683
†1927-28	...	...	...	...	15,936,124	11,562,692	13,143,102
†1928-29	...	...	...	...	15,143,709	11,501,337	13,011,160
†1929-30	...	...	...	...	15,694,355	9,956,641	11,359,972
†1930-31	...	...	...	...	5,150,163	4,653,855	5,113,835

\*At exchange of 1s. 4d.

†At exchange of 1s. 6d.

The general causes of the phenomenal slump in imported piece-goods are dealt with at length in Chapter I and the effects of the crisis on the Lancashire position in India are treated in detail in Chapter II. The reduction of India's purchasing power consequent upon a steady fall in the prices of her staple products had been a marked feature of the year 1929/30. The still further catastrophic fall in the agricultural prices in the year 1930/31 almost brought business to a standstill. The stage was therefore set for a most difficult period of trading when, in April, 1931, the boycott movement was launched by the Indian Congress, directed against all imported textiles in general and United Kingdom goods in particular. Markets were closed in the main ports and distributing centres, agreements not to undertake forward business were signed by most of the principal dealers and stock could only be cleared with the greatest difficulty. The result was that, once the moderate imports of goods ordered before April, 1930, had been received, further arrivals were on a very small scale and the stocks throughout the country were reduced to a very low level. There is little doubt that, had imports not been compulsorily reduced as a result of the boycott, we should have been faced to-day with heavy stocks of high priced goods, which could not possibly have been cleared owing to general trade stagnation, and which would probably have brought about repudiation of contracts and a similar state of affairs to that obtaining in 1921/22.

The following table gives the declared value per yard of the three main classes of piecegoods in 1913/14 and during the last four years :—

Cotton piecegoods.	1913-14	1927-28	1928-29	1929-30	1930-31
	Rs.As.Ps.	Rs.As.Ps.	Rs.As.Ps.	Rs.As.Ps.	Rs.As.Ps.
Grey (unbleached) ...	0 2 8	0 3 11	0 3 10	0 3 7	0 3 0
White (bleached) ...	0 2 11	0 4 5	0 4 5	0 4 6	0 3 0
Coloured, printed or dyed ...	0 3 5	0 5 7	0 5 6	0 5 0	0 4 5

Here we find the clue to the inevitable falling-off in cotton piecegoods. The declared values per yard of all kinds of imported textiles in 1930/31 were approximately 15 per cent. at the pre-war values. The official index number of the priced cotton manufactures in Calcutta on March 31st, 1931, was 121, *i.e.* 21 per cent. above pre-war rates. On the other hand, the general Calcutta index number for all commodities on that date was 100, while the index numbers of India's principal crops were as follows—cereals 76, pulses 92, tea 44, hides 80, raw cotton 93, and raw jute 45. It is obvious that as the ryot is only receiving prices well below the levels of 1913/14 for his staple crops, prices which in most cases are below the actual cost of production, and as he has certain definite fixed cash payments for rent, rates, taxes, &c., to make, his available balance for the purchase of such articles as cotton cloth is reduced to an even greater extent than would be expected from the fall in price of his agricultural products alone. It is not surprising, therefore, that with a cloth index number of 121, there has been such a phenomenal fall in the trade. The political agitation and boycott undoubtedly aggravated the situation and threatened to undermine the whole position of the United Kingdom exporter in the market. The basic cause of the slump is, however, the economic one stated above. Until prices of agricultural produce are stabilised at a higher level and cloth prices approximate more closely to the general index figure, there would not appear to be much hope of a material advance in the consumption of cotton piecegoods in India.

#### VARIETIES OF PIECEGOODS IMPORTED.

Grey (unbleached).	1913-14 (pre-war year).	1928-29	1929-30	1930-31
Dhooties, saris and scarves...	806·1	(All in million yards) 486·7	501·1	171·0
Jaconets, madapollams, mulls, etc. ...	150·4	78·9	53·0	19·3
Longcloth and shirtings ...	545·4	252·0	340·1	166·3
Sheetings ...	0·2	6·5	14·7	4·1
Drills and jeans ...	21·3	11·8	13·4	2·4
Other sorts ...	10·8	2·7	3·2	1·9
Total ...	1,534·2	838·6	925·5	365·0

The fall has been most marked in grey dhooties, the cheapest clothing of the ryot, a predominantly Lancashire trade which has felt the full force of the boycott, particularly in Bengal, and has also suffered from substitution of Ahmedabad mill goods and, to a lesser extent, Japanese dhooties. The decline in longcloth and shirtings has probably affected Japan more than Lancashire, as Japanese grey shirtings had already largely ousted the United Kingdom fabric from the Indian market. The fall in grey jaconets, &c., can be accounted for by the fact that they are fairly high priced goods and have therefore suffered from the substitution of cheaper types of cloth produced by Japan and the Indian mills.

White (bleached).	1913-14 (pre-war year).	1928-29	1929-30	1930-31
		(All in million yards)		
Dhooties, saris and scarves...	104.3	43.1	45.5	15.4
Jaconets, madapollams, mulls, etc. ... ..	307.9	258.0	219.7	135.4
Longcloth and shirtings ...	115.3	123.0	104.1	71.9
Nainsooks ... ..	204.7	76.6	53.1	25.9
Drills and jeans ... ..	5.7	5.7	6.6	3.8
Checks, spots and stripes ...	16.1	12.7	12.0	3.7
Twills ... ..	8.3	17.7	16.8	7.7
Other sorts ... ..	31.0	17.2	15.8	7.8
<b>Total ... ..</b>	<b>793.3</b>	<b>554.0</b>	<b>473.6</b>	<b>271.6</b>

The reduction in the imports of bleached goods, although serious, has not been quite so marked as in the case of grey and coloured fabrics. This is mainly due to the fact that the output of bleached goods from Indian mills is very small and consequently there is no possibility of substitution of "swadeshi" cloth. The trade in fine white goods has naturally suffered on account of reduced purchasing power. The trade in the lower grades of white mulls has, however, not been so much affected and still continues on a fair scale for the Punjab. Stocks of many types of bleached goods are almost exhausted and any serious revival of demand would send prices soaring. It is likely that the bleached goods trade will be the first to recover.

Coloured, printed or dyed	1913-14 (pre-war year).	1928-29	1929-30	1930-31
		(All in million yards)		
Dhooties, saris and scarves...	115.2	36.3	33.0	19.1
Cambrics, etc. ... ..	113.6	49.7	43.5	20.5
Shirtings ... ..	152.6	95.0	105.6	54.7
Prints and chintz ... ..	209.7	75.0	61.3	33.7
Drills and jeans ... ..	30.0	57.9	86.6	33.3
Checks, sports and stripes ...	19.7	22.4	26.2	12.5
Twills ... ..	31.4	47.9	36.6	16.0
Other sorts ... ..	159.6	122.7	90.7	55.9
<b>Total ... ..</b>	<b>831.8</b>	<b>506.9</b>	<b>483.5</b>	<b>245.7</b>

Imports of coloured goods have suffered from boycott activities as they are usually of unmistakably foreign origin and their wearers have been a target for the activities of picketers. Also, owing to the phenomenally low prices of Japanese artificial silk taffetas, these have been largely substituted for the dyed or printed cotton fabric. Indian mill production of coloured goods declined from 604,000,000 yards to 557,000,000 yards. These are largely bleached goods with woven coloured stripes and have suffered from the competition of Japanese printed styles. The reduction in the imports of woven coloured goods has been very marked and, from a Lancashire point of view, the decline in the print trade during the post-war period is the most serious feature of the coloured goods schedule.

#### SOURCES OF IMPORTS.

##### (1) Grey Goods.

Countries of consignment.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	520,515,039	11,76	143,296,706	2,81
China ... ..	9,708,202	20	2,490,940	5
Japan ... ..	393,696,289	8,91	218,319,100	3,98
United States ...	916,003	3	534,696	2
Other countries ...	713,168	2	397,982	1
Total ... ..	925,548,701	20,92	365,039,424	6,87

For the first time in the history of the trade imports of Japanese piecegoods have exceeded, both in quantity and value, the imports from the United Kingdom. This may be ascribed mainly to the great reduction in the import of Lancashire dhooties owing partly to the depression and partly to the boycott. In 1929/30 no less than 443,000,000 yards of the 520,000,000 yards imported from the United Kingdom consisted of bordered dhooties. Japan shipped in 1929/30 57,500,000 yards. Since the boycott began in April, 1930, practically no forward business of any magnitude in dhooties has been placed, with the result that once the imports of goods ordered before March 31st, 1930, had been effected, the enormous Lancashire trade practically ceased. Japan, meanwhile, although the boycott nominally extended to all imported piecegoods, was able to continue doing business. Japanese grey shirtings and dhooties were being sold at such attractively low prices that the bazaars could not resist them and the goods were imported and cleared without much difficulty. Even so, the yardage imported from Japan has fallen heavily. As I stated last year—with the exception of the valuable trade in grey dhooties and in a normal year about 50,000,000 yards of grey jaconets—the Indian trade in plain grey goods is, at present, lost to Lancashire, primarily owing to the competition of the Indian mills, and secondarily due to Japanese

competition. In 1930-31 the percentage shares of the United Kingdom and Japan in the grey trade were 39·2 and 59·8 respectively.

(2) *Bleached Goods.*

Countries of consignment.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	435,947,709	12,03	229,959,908	5,23
Netherlands ...	7,503,655	29	4,258,804	14
Switzerland ...	8,584,401	35	5,444,305	19
Japan ...	13,880,453	33	28,105,352	51
Other countries ...	7,667,795	27	3,873,298	13
Total ...	473,584,013	13,27	271,641,667	6,20

Apart from the inevitable reduction in all types of bleached goods, which has affected goods shipped from Holland and Switzerland quite as much as United Kingdom goods, the feature of the year has been the incursion of Japan into practically all the staple lines of the trade except the very finest white fabrics. Japanese white shirtings, drills and jeans and nainsooks have been on the market for a year or two, but in 1930/31, for the first time, Japanese white mulls of marketable quality, bleach and finish, in spite of a 5% disadvantage in the import tariff, were sold at prices below those at which similar British goods could compete. In 1928/29, Japan's share of the bleached trade was 1%. Last year it was 10·3%. Even taking into account that the times were exceptional in view of the political prejudice against British goods, the fact remains that Japanese competition in white piecegoods is a permanent factor which will have to be faced by Lancashire.

(3) *Coloured, Printed or Dyed Goods.*—The heading is made up as follows:—

Description.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
Printed goods ...	199,942,926	5,77	106,491,261	2,61
Dyed goods ...	150,998,312	4,91	93,120,332	2,69
Woven coloured goods	132,534,139	4,46	46,100,866	1,52
Total imports ...	483,475,377	15,14	245,712,459	6,82

The provenance of the imports was as follows :—

Countries of consignment.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	278,620,280	9,50	147,626,066	4,47
Germany ...	1,403,888	9	583,172	4
Netherlands ...	14,185,817	70	8,544,830	35
Belgium ...	917,169	8	412,137	3
Switzerland ...	1,586,373	10	685,529	4
Italy ...	22,989,915	82	8,749,773	28
Straits Settlements ...	1,489,232	7	711,782	3
Japan ...	154,269,631	3,45	74,269,591	1,44
Other countries ...	8,013,072	33	4,129,579	14
<b>Total ...</b>	<b>483,475,377</b>	<b>15,14</b>	<b>245,712,459</b>	<b>6,82</b>

In this category it will be found that the slump has affected all suppliers, whether United Kingdom, Continental or Japanese, in approximately equal measure. All have suffered from the same disabilities, whether of boycott or of reduced purchasing power. The United Kingdom percentage of the whole actually rose from 57·6 to 60, while that of Japan was slightly reduced from 31·9 to 30·2 indicating that the Continent (particularly Italy) suffered most. Japanese competition is keen in printed drills, jeans, shirtings, flannelettes and "prints and chintz"; in dyed drills and jeans, flannelettes, shirtings and twills; and in coloured woven checks, spots and stripes, drills and jeans, twills and shirtings. Even in velvets and velveteens, Japanese imports now approximate those from Lancashire.

(4) *Fents of all Descriptions.*—This trade, which reached its zenith in 1927/28 with an import of Rs.94 lakhs' worth, has shown a progressive decline since and was reduced to less than 20% of that figure in 1930/31.

Countries of consignment.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	12,456,293	36	2,548,321	6
United States ...	23,908,034	53	4,792,649	10
Other countries ...	374,094	1	235,386	—
<b>Total ...</b>	<b>36,738,421</b>	<b>90</b>	<b>7,576,356</b>	<b>16</b>

Whereas United Kingdom shippers have conducted a valuable trade in fents for several decades, they were regarded for many years in the United States as a waste product to be sold for what they would fetch. New York shippers, having discovered the Indian market, have consistently sold their fents in India at prices much below United Kingdom quotations, which were augmented

by an elaborate system of stitching and making-up. The principal market is in Bombay.

SHARES OF THE PRINCIPAL COMPETITORS IN THE TOTAL QUANTITIES OF PIECEGOODS IMPORTED.

Countries of consignment.	1913-14 Per cent.	1927-28 Per cent.	1928-29 Per cent.	1929-30 Per cent.	1930-31 Per cent.
United Kingdom	97.1	78.2	75.2	65.0	58.8
Japan ... ..	0.3	16.4	18.4	29.3	36.1
United States ...	0.3	1.4	1.5	1.7	1.0
Netherlands ...	0.8	1.0	1.0	1.1	1.5
Other countries ...	1.5	3.0	3.9	2.9	2.6
Total ...	100.0	100.0	100.0	100.0	100.0

The outstanding feature of the year has been the further advance in the Japanese share of the trade which has resulted, firstly, from the fact that Japanese goods have not been subjected to the same boycott activity as the products of the United Kingdom and, secondly, from their low prices, which have assisted their sale during a year of such intense depression. In times of extreme poverty and reduced purchasing power, the Indian consumer is obliged either to make his clothes last longer and to defer the purchase of new cloth (in this regard, it is reported that torn or worn-out dhooties are now being repaired in the districts of Bengal) or else to substitute cheaper cloths for the Lancashire fabrics, which he may have been in the habit of buying. This process of substitution of the cheaper Indian mill-made and Japanese qualities has been proceeding ever since the end of the war, during which time the price level of United Kingdom goods has been far above the ideas of the purchasing populations in the East. The still further reduction of India's purchasing power in 1930/31, coupled with the political agitation against United Kingdom goods, afforded the Indian and Japanese manufacturers a unique opportunity of improving their position. That they have taken full advantage of this opportunity to acquire a position from which it will be difficult to dislodge them is amply proved by the statistics already given. The Japanese have scored very heavily in Eastern markets by their production of standard qualities at remarkably low prices, which would seem to be made possible by their closely-knit organisation and by the use of the Toyodo automatic loom. Details, both of the Japanese manufacturing and marketing organisation and of the general position in the Indian market, can be obtained from the reports on the Cotton Industries of Japan and India recently compiled by Mr. Arno S. Pearse, late Secretary of the International Federation of Master Cotton Spinners' and Manufacturers' Association.

**Indian Mill Competition.**--The subjoined detailed statement gives the quantities (in pounds and their equivalent in yards) and

descriptions of the woven goods produced in Indian mills during the past three years :—

Descriptions.	Twelve months, April to March.			
	1928-29	1929-30	1930-31	
<i>Grey and Bleached Piecegoods :</i>				
Chadars ... ..	pounds	20,570,954	23,765,477	20,431,764
	yards	56,681,087	66,040,321	53,952,571
Dhooties ... ..	pounds	115,262,574	157,233,552	164,280,916
	yards	564,153,870	776,027,510	831,405,029
Drills and jeans ...	pounds	19,087,046	25,022,969	21,037,263
	yards	76,336,349	100,297,055	80,738,834
Cambrics and lawns	pounds	744,455	573,491	4,069,786
	yards	4,601,226	3,589,548	28,856,989
Printers ... ..	pounds	4,769,783	4,146,925	3,818,419
	yards	22,471,220	19,454,967	19,106,120
Shirtings and long-cloth ... ..	pounds	107,701,083	130,274,038	141,317,010
	yards	474,221,488	585,225,147	642,222,883
T-cloth, domestics and sheetings ...	pounds	19,699,114	23,733,182	32,299,680
	yards	75,487,815	90,665,313	121,900,368
Tent-cloth ... ..	pounds	2,946,545	3,190,893	3,399,164
	yards	6,935,315	7,629,360	8,738,057
Khadi, dungri or khaddar ... ..	pounds	31,575,028	43,213,288	60,219,412
	yards	93,688,988	124,634,578	175,212,963
Other sorts... ..	pounds	8,568,794	10,604,798	9,451,729
	yards	35,015,194	41,357,002	41,356,426
Total ... ..	pounds	330,925,376	421,758,613	460,325,143
	yards	1,409,592,552	1,814,920,801	2,003,490,240
<i>Coloured piecegoods</i>	pounds	102,175,898	125,858,918	117,518,225
	yards	483,676,103	604,060,248	557,642,795
<i>Grey and coloured goods, other than piecegoods</i>	pounds	3,330,966	4,536,020	3,178,666
	dozens	786,008	1,164,778	779,365
<i>Hosiery</i> ... ..	pounds	1,609,033	1,923,016	1,646,193
	dozens	493,488	576,353	493,176
<i>Miscellaneous</i> ...	pounds	4,403,538	4,799,615	4,225,198
<i>Cotton goods mixed with silk or wool</i>	pounds	3,211,762	3,360,526	3,443,498
<i>Grand total</i> ... ..	pounds	445,656,573	562,236,708	590,336,923
	yards	1,893,268,655	2,418,981,049	2,561,133,035
	dozens	1,279,496	1,741,131	1,272,541

That the Indian mills have availed themselves of their opportunity is shown by the increase in their total production from 2,419,000,000 yards to 2,561,000,000 yards, which should be compared with the total imports of 890,000,000 yards. The position in the Indian mill industry is clearly summarised by the Director-General of Commercial Intelligence in his Review of Trade when he states " Considering the severe depression in agriculture and



industry and the consequent fall in the purchasing power of the agriculturists in India as well as the disturbed political condition of the country, the cotton industry may be said to have done fairly well in the year under review. There were two main causes for this favourable state of affairs. In the first place, the enhanced customs duties imposed in the Budget of 1929/30 helped the industry considerably in relation to foreign competition. Secondly, the boycott agitation started by the Congress assisted the sale of cotton goods produced by the Indian mills. Added to these two factors, the third favourable circumstance was the absence of any serious labour trouble throughout the year under review. The only drawback at the beginning of the year was the glut of stocks of piecegoods in the market. This led to a somewhat depressed condition in the middle of the year which was aggravated by the frequent "hartals," by the demoralisation of the raw cotton market and by differences between the Congress and some of the mills. From October, however, some of these difficulties were removed and the outlook in the industry became favourable from about that time. On the whole, therefore, the condition of the cotton mill industry in India, considering the peculiar circumstances of the year, may be considered as having been fairly satisfactory. It may be interesting to note that the situation has become even more favourable from March, 1931, when an additional 5% duty was imposed on cotton piecegoods imported from abroad. The outlook for the year 1931/32, therefore, is on the whole, promising, being only modified by the reduced purchasing power of the main body of consumers. The satisfactory condition of the year 1930/31 is evidenced by the fact that the production of both yarn and of piecegoods has been a record."

The Committee of the Bombay Millowners' Association in their report for 1930 included the following :—

"The position in the cloth market has also been unsatisfactory throughout the year. It is doubtful whether, but for the intense Swadeshi movement which prevailed during the period, several Bombay mills could have continued their operations throughout the year as they did. The advantages which the movement afforded were, however, counterbalanced to a great extent by the troubled political situation and the tense feeling which prevailed in Bombay, resulting in frequent hartals, as already mentioned, which created a situation which shook the confidence of merchants and hampered credit. The continuous fall in the price of cotton also brought about a similar decline in the cloth market, merchants buying only for their immediate requirements. Stocks of cloth with mills rose from 137,000 bales at the beginning of the year to over 200,000 bales by the end of August. The situation in the cotton market during September and October improved the offtake, though prices realized by mills did not increase as they were more anxious to decrease stocks than to realize prices commensurate with their higher costs. The price of standard longcloth which was 14½ annas at the beginning of the year declined to 13½ annas by the end of January and kept steady at this price till the middle of May when there was a small rise of a quarter of an anna. Remaining steady at 13½ annas for about a month, prices began declining again until the end of the year when standard longcloth was sold at 11½ annas. The demand for cloth that had sprung up stopped again when cotton began declining from the

middle of November, and the only gleam of hope at the end of the year was the fact that up-country centres were depleted of stocks and a demand was certain to rise sooner or later; any improvement in the political outlook is also bound to be reflected in an improvement of trade generally and of the cloth market in particular.

"The movement for boycotting foreign piecegoods generally, and fine English piecegoods in particular, naturally created a demand for finer Swadeshi cloths, and this induced mills to import long-stapled Egyptian cottons, imports of which reached a record. In consequence of the Indian mills turning to finer counts, considerable quantities of American cotton have also been imported by shippers, but owing to their prices being comparatively high, they have not found a ready market, and most of the cotton imported is yet unsold.

"The year opened with a stock of 27,000 bales of yarn and 137,000 bales of cloth and closed with a stock of 24,000 bales of yarn and 145,000 bales of cloth. The average monthly stocks of yarn and cloth during the year were 28,000 bales of yarn and 167,000 bales of cloth against 13,000 bales of yarn and 86,000 bales of cloth in 1929."

In order to take the fullest advantage of the Swadeshi movement, the Bombay Millowners' Association, early in the year, took special measures to assist members to increase the sale of their cloth throughout India. A warranty label, bearing a warranty clause to the effect that the goods on which it is affixed do not contain any foreign yarn and that they are made by an Indian company and by Indian labour is issued to members who give a signed undertaking that they will not use it on cloth in which any type of foreign yarn or artificial silk is used. A permanent showroom for the exhibition of the goods of members of the Association was opened at Victoria Terminus Station, Bombay. Fifty mills, grouping mills under the same agency, have had the use of this showroom for a fortnight. Special arrangements have been made with the Swadeshi Co-operative Stores, Bombay, to stock and sell goods on behalf of the exhibiting mills and also on behalf of such other mills in Bombay as are prepared to send their goods to the stores for retail sale. In addition, several mills have opened their own retail shops in different parts of Bombay. At the close of the year these shops numbered 27.

The Committee of the Millowners' Association have maintained close touch with the selling agents of the mills, who have formed themselves into the Bombay Mills Cloth Selling Agents Association. Frequent meetings have been held with the object of establishing closer contact with large consuming centres and it is hoped that the following steps will shortly be taken:—

(1) The establishment of a showroom in the Mulji Jetha Market, Bombay.

(2) The opening of up-country agencies.

(3) The despatch of travelling salesmen to important consuming centres.

The Millowners' Association have also made arrangements for the employment of a bazaar representative whose duty will be to collect

periodically samples and prices of competitive lines of imported goods.

In order to meet the public demand that there should be some organised control of prices, with a view to preventing the penalisation of the consumer as a result of the Swadeshi movement, it has been arranged that regular fortnightly price lists specifying the ex-mill prices of the chief brands of (a) grey goods and (b) bleached, dyed and fancy goods, should be circulated gratis to all important commercial bodies and associations connected with the trade and sent to the leading English and vernacular papers for publication.

It will be recalled that the Indian Tariff Board advocated the establishment of a combined bleaching, dyeing and printing works in Bombay. A private scheme on these lines was tentatively proposed but it is stated that, owing to the heavy rates for water which were payable to the Bombay Government, this proposal has been placed in abeyance. Opposition to the establishment of a central plant has been met from companies already owning bleaching and dyeing plants on the grounds that their own works were not working to full capacity. The Association summarise the position in their 1930 report by stating that "the present financial position of the industry also precluded the possibility of the industry supporting a proposition of this nature, and any financial resources which mills might have at their command at present must, it was thought, be devoted to reorganisation in the direction of the replacement of old machinery and the introduction of automatic looms on a larger scale than had hitherto been possible. Public support to a project on the lines outlined by the Tariff Board was also unlikely in view of the general conditions of the money market in Bombay, and the continuous depression in the textile industry. In these circumstances, a special sub-committee of the Association had considered the possibility of erecting a central bleaching and dyeing plant by concentrating under one control all the dyeing and bleaching machines in Bombay which would serve as the nucleus of a combined plant. But after a careful study of the data collected in this connection, they were of the opinion that the cost involved in the removal of individual plants and the difficulty of their adjustment to the requirements of an up-to-date bleaching and dyeing factory would far outweigh any advantage which might accrue as a result of this suggestion. While the Committee regretted their inability, for the reasons outlined above, to put forward practical suggestions for the initiation of a scheme for the establishment of a combined factory, they thought that such a scheme was capable of adoption if trade conditions improved or if proposals which were made for an amalgamation of mills were carried to a successful issue."

A scheme for the rationalisation of a large section of the Bombay industry by a suggested merger of certain groups of mills was carefully considered during the year. An expert valuation of the

mills concerned was made by a leading authority, but it is stated that the proposal has fallen through, the reason given in the Press being the heavy Government stamp fees which would be chargeable. The improvement in the general conditions and prospects of the industry together with the difficulty of arranging terms suitable to the principal parties probably contributed to this decision.

**Conditions in Ahmedabad.**—The President of the Ahmedabad Millowners' Association in reviewing the year, stated that "Our industry passed through alternate periods of depression and fair demand. During the first half of the year conditions were not favourable. However, during subsequent months demand from consuming centres gradually helped the mills and stocks were sold and forward business secured. Stocks had accumulated at the mills from June to August but the last three months gave a fillip to the industry due to the increased force of the Swadeshi movement. Seventy-two mills—that is, practically all mills in Gujerat—have stopped the use of foreign yarn and artificial silk. Such uniform manufacture of Swadeshi cloth without a single thread of foreign yarn will, I hope, give the mills better advantage in the country."

The total production at Ahmedabad advanced from 649,000,000 yards to 691,500,000 yards, of which grey dhooties represented 290,000,000 yards, grey shirtings and longcloth 170,500,000 yards and coloured piecegoods 156,000,000 yards.

**Cloth Consumption of India.**—The following table, compiled by the Director-General of Commercial Intelligence, gives a rough estimate of the mill-made cloth from all sources which was available for consumption in India during the year 1913/14 and during the past four years :—

	1913-14 (pre-war year). Million yds.	1927-28 Million yds.	1928-29 Million yds.	1929-30 Million yds.	1930-31 Million yds.
Indian Mill production	1,164·3	2,356·6	1,893·3	2,419·0	2,561·1
Imported goods ...	3,197·1	1,973·4	1,936·8	1,919·3	890·0
Total production and imports ...	4,361·4	4,330·0	3,830·1	4,338·3	3,451·1
Exported, Indian ...	89·2	168·6	149·2	133·4	97·7
" Foreign ...	62·1	33·8	24·2	22·2	17·4
Total exports ...	151·3	202·4	173·4	155·6	115·1
Balance available ...	4,210·1	4,127·6	3,656·7	4,182·7	3,336·0

It will be remarked that the position of imported and Indian mill-made goods has been almost exactly reversed. Whereas in

1913/14 imports provided three-quarters and the Indian mills one-quarter of the machine-made cloth available for consumption in the country, in 1930/31 the Indian mills produced three-quarters and imports one-quarter of the available balance for consumption.

The following table, from the same source, showing the *per caput* consumption over the same series of years is of interest in this connection :—

Year.	Net imports.		Net available mill production.		Total available for consumption.	
	Actual.	Per caput.	Actual.	Per caput.	Actual.	Per caput.
	Crore yds.	yds.	Crore yds.	yds.	Crore yds.	yds.
1913-14 ... ..	313	9.90	107	3.39	420	13.29
1927-28 ... ..	194	5.69	219	6.42	413	12.11
1928-29 ... ..	191	5.54	174	5.04	365	10.58
1929-30 ... ..	190	5.46	229	6.58	419	12.04
1930-31 ... ..	87	2.48	246	7.01	333	9.49

It will be noted that, although the mill production has increased since 1913/14 by 139 crore yards, it has by no means balanced the falling off in imports of 226 crore yards with the result that the cloth available for consumption is 87 crore yards short of 1913/14 and the *per caput* consumption has fallen from 13.29 to 9.49.

#### CONDITIONS IN THE LARGE IMPORT MARKETS.

Nearly 39% of the total quantity of piecegoods imported in 1930/31 was received in Bengal as compared with nearly 45% in 1929/30. Bombay imported 20% while the shares of Karachi and Madras increased from 15% and 6% to 21% and 9% respectively. The share of Burma rose from 7% to 11% in 1930/31. Although Calcutta still remains the greatest market for cotton piecegoods, both Indian and imported, in India and, in fact, in the world, the Bombay market during the past year received greater attention, as it was the centre of Congress boycott activities and reflected the full force of the attack on United Kingdom goods.

*Bombay.*—I am indebted to a leading Authority, who has been throughout in close touch with the market, for the following summary of conditions during the period :—

“ The political events in the first quarter of 1930 developed at a rate beyond all expectations and after the declaration of Congress policy in March of that year trading became increasingly difficult.

“ The demand in the Bombay piecegoods market had reflected for some time the reduced purchasing power of India's consuming population following the shrinkage in her exports due to the drop in prices of her staple products. Apart from this factor, however, the increasing imports of cheap Japanese textiles had caused an accumulation of higher-priced stocks, mainly British, which dealers would have had difficulty in clearing even apart from the

political disturbances. The steady fall in raw cotton prices reduced still further the market values of existing stocks which soon became almost unsaleable. All the conditions, therefore, particularly the general economic depression, were favourable to the success of the Congress boycott which was specially directed against imported textiles.

"The effects of the closing of the principal piecegoods market in Bombay early in the campaign, were immediate and disastrous, and deliveries were soon reduced to one-third of their volume. As a result imports of cotton piecegoods into Bombay showed a steady shrinkage and by September these showed a reduction as compared with the same month of the previous year, of 38 million yards in quantity and 1 crore 7 lakhs of rupees in value. The 'Devali' demand proved a failure and was in fact the worst on record. Sales were practically impossible except for a small amount of business in local productions. The year closed in a slightly more hopeful vein owing to the possibility of more favourable developments following the Round Table Conference, but the general feeling among dealers was one of pessimism as a result of Congress interference with trade, and the certainty of continued depreciation of stock values.

"Although the effects of the boycott were felt mainly by the United Kingdom, Japanese suppliers also suffered appreciably although the trade losses of that country were proportionately and quantitatively less than those of the United Kingdom. In fact in artificial silk cloths and white goods, Japan exported larger quantities than in any previous year, the figures being:—

	1930	1929
	Million	Million
	yds.	yds.
Whites ... ..	6 $\frac{3}{4}$	1 $\frac{1}{2}$
Artificial silk cloths ... ..	16 $\frac{1}{2}$	10 $\frac{5}{8}$

At first sight these figures would suggest that Japanese cloths have enjoyed immunity from boycott. This is not so, and is explained by the fact that of the figures given, 98 per cent. was imported into Bombay between the 1st January and the 30th June, doubtless in fulfilment of orders placed in the final quarter of 1929 and the first quarter of 1930, before the boycott became effective. It is of interest, however, to speculate to what extent Japan would have continued increasing her sendings of these other qualities had it not been for Congress action.

The following statement shows the position in regard to other textiles:—

Bordered Goods ...	U.K. 46% less than 1929	Japan 45% less than 1929
Greys ... ..	" 50% "	" 52% "
Whites ... ..	" 41% "	" 30% more than 1929
Prints ... ..	" 51% "	" 56% less than 1929
Dyed Cloths ...	" 46% "	" 40% "
Fancies (Woven, coloured) ...	" 21% "	" 59% "
All piecegoods ...	" 49.5% "	" 45% "
All yarns ... ..	" 40% "	" 42% "

Imports from China are not included in these figures. Although the boycott commenced when Japan was approaching record figures in exports to this market, and has seriously reduced her trade, there is no doubt she is a formidable competitor. It is very likely that the future textile trade of this country generally will be largely met by the Far East and Indian productions, with the United Kingdom and the Continent taking third place, unless the question of price is so adjusted as to place the West in successful competition with the East.

"Continental and other Foreign Competition.—The Continental and other imports are of course all considerably reduced and of the countries shipping to this market Italy and Belgium have fared the worst. The import figures

have, however, shown a steady decline since the end of 1928 and in order to illustrate the position clearly we give below the percentage loss figures concerned :—

*All Piecegoods, 1930.*

Italy	...	48%	less than 1929 and	70%	less than 1928
Belgium	...	60%	"	76%	"
Germany	...	42%	"	83%	"
Holland	...	31%	"	54%	"
Switzerland	...	22%	"	60%	"
U.S.A.	...	54%	"	50%	"

Apart from particular conditions ruling in India in 1930, the gradual decline of Continental imports is due largely to Far Eastern and local manufactures competing successfully in price. In artificial silk cloths, Continental makers have been very badly hit and it will be a great struggle for them to regain their position of 1928. It is doubtful if they ever will.

" We give below the percentage for the past four years of imports into Bombay of the main countries interested :—

	Piecegoods.				Yarns.			
	1930	1929	1928	1927	1930	1929	1928	1927
	%	%	%	%	%	%	%	%
United Kingdom	48.0	50.0	64.0	59.4	39.4	37.0	42.0	25.6
Japan	40.9	38.7	21.0	25.2	29.0	28.0	20.5	41.3
China	0.5	1.2	0.4	1.1	13.4	16.0	18.3	17.8
United States	4.5	5.0	4.8	5.0	1.2	—	—	—
Italy	2.5	2.5	4.3	3.0	13.0	13.4	10.5	10.6
Belgium	0.2	0.2	0.4	0.3	—	—	—	—
Holland	0.5	0.5	0.7	0.5	—	—	—	—
Switzerland	2.3	1.5	3.1	3.4	—	—	—	—
Germany	0.2	0.1	0.5	0.7	—	—	—	—
Others	0.4	0.3	0.8	1.4	4.0	5.6	8.7	4.7

" In the beginning of 1931 a slight improvement showed itself and by March the importations of cloth and yarn showed a definite increase although still very considerably less than those of 1930. In dhooties and sarees, however, which constituted such an important share of United Kingdom trade with India in textiles, the imports are still negligible.

" A significant feature in 1931 has been the increasing competition from Japan and in the first three months of the present year, Japan sent more piecegoods to Bombay than the United Kingdom. The actual figures are as follows :—

		Million yards.
From Japan	...	23
„ United Kingdom	...	13

The comparable figures for 1930 were :—

From Japan	...	53
„ United Kingdom	...	63

" At the present time it is difficult to estimate the future course of events, as the principal importers and dealers do not seem disposed to attempt to revive the trade in imported textiles until the position is clearer and there is some assurance that the difficulties of the past year will not recur as a result of a revival of the repressive methods of Congress. It is, however, probable that a considerable number of consumers who have turned to the use of cloth

of indigenous production during the past year will not return to foreign cloth in the future. This attitude may be regulated by the price factor, but events will prove what definite change Congress action has made to the consumption of foreign cloths. It may, however, be taken as fairly certain that imported goods in future will not be in such great demand, except, perhaps, in certain staple lines, as in the past."

*Calcutta.*—A leading authority in the piecegoods trade writes as follows:—

" 1930.—The latter half of this year was marked by the boycott of foreign piecegoods. Intense picketing was resorted to and the free movement of stocks was severely handicapped. Dealers tried several methods in order to outwit the Congress pickets and went as far as to deliver during the night when the bazaar was more or less quiet. Later, in order to counteract the pickets, the body known as "blue badgés" came into being and they were able to afford considerable help to the dealers in giving deliveries.

" Another feature of the year, to our mind the result of a declining market, was the wholesale complaints of short lengths in grey dhooties. Some of these complaints were justified but others were groundless. A considerable number of such complaints were referred to the Bengal Chamber of Commerce for arbitration and on a large proportion of them cancellation was awarded. This afforded relief to some of the dealers and enormous losses on the importers concerned.

" 1931.—Early in the year the Irwin-Gandhi Pact was arrived at and the trade in general had hopes of a revival in the piecegoods business. These hopes were soon dashed to the ground and the market to-day is in as bad a state as it was at the beginning of the year. The recent drop in cotton has not helped matters and this coupled with the inactivity of the up-country consuming centres, due to the very low purchasing power of the ryot, are depressing our market.

" Stocks are very light indeed and though the business done so far this year has been negligible we do not hold much hope of a recovery, in the near future, of the forward demand."

*Karachi.*—A prominent Karachi importer writes as follows:—

" The year under review has proved to be one of the most difficult, and we think we can say disastrous, in the annals of the piecegoods trade of this side of India, and although it was generally felt at the beginning of the year that the general prospects were far from encouraging there is little doubt that no one anticipated experiencing such a combination of adverse circumstances which have prevailed during the past 12 months. Following a general increase in the import duty on piecegoods, the Karachi and Amritsar dealers in April passed resolutions refusing to place orders for foreign goods either ready or forward for 12 months. It was, however, generally felt that these resolutions would not be strictly enforced, but in a very short space of time it became quite apparent that a strong political movement on the part of the Indian National Congress was working behind the scenes. The rest of the year resulted in continual unrest throughout the whole country, and during the months of June and July the boycott of foreign goods, which, in the main, was directed against British goods, became more and more intensive, culminating in frequent and prolonged hartals which tended almost entirely to dislocate trade. The sales of piecegoods in the various bazaars both at the ports and in the up-country markets were severely restricted owing to picketing with the result that dealers were reluctant to clear their goods, knowing as they did full well, that importers were almost powerless, without resorting to lengthy litigation, to enforce the terms of their contracts. Fresh business with foreign countries was in the main neglected, although it is true that during the months of August and September a certain amount of secret buying took place. Stocks generally were not unduly heavy, but in spite of this



prices continued their downward course. Efforts were made in August and October to re-open the Karachi market, but in point of fact little good resulted as intensive picketing was resorted to, both women and men taking active parts. During the closing months of the year 1930, no improvement in the general position was noticeable and depression continued to overshadow all markets. A slight, but only temporary, revival in trade was noticeable in January-February, 1931, and the offtake to the consuming markets showed some improvement. Confidence in the future course of the raw article and the Manchester market continued to be lacking with the result that dealers adopted a hand-to-mouth policy, and prices gradually moved in favour of buyers, until they have now reached a level which show both dealers and importing houses substantial losses. The causes are, of course, to some extent due to the marked decline in cotton, but are in the main attributable to the heavy imports from the Far East coupled with the agrarian situation up-country which has tended to accentuate an already complicated position. Briefly the feeling can be summed up in a total lack of confidence either in ready prices or in forward rates. It is impossible to state with any degree of accuracy whether the bottom has now been touched, and whether purchases at current values would result in profits, and in view of this the general policy throughout the country is to avoid buying on any scale. The political situation, which has been so preponderant during the past 15 months, appears to have eased slightly, but a more serious factor, namely the economic position throughout the agricultural districts, is preventing any revival in the piecegoods trade in general. The outlook continues uncertain and conditions are very unsettled, and it is doubtful whether there is any likelihood of the foreign piecegoods trade of this country approaching anything near normal in the immediate future."

*Madras.*—A well-informed correspondent reports as follows :—

"Trade in piecegoods and yarns was conducted under very gloomy conditions and was no exception to the world-wide trade depression, coupled with the further embarrassments caused by the political upheaval throughout India. With regard to the latter, the Madras Presidency was more fortunately placed than the rest of India. Foreign cloth and yarn were certainly boycotted in Madura, Salem and other places but on nothing like the scale experienced in Bombay, Calcutta and other northern markets. The boycott in Madura was not entirely due to Congress as dealers there welcomed the movement in order to get rid of heavy high-priced stocks and when this had been accomplished the boycott automatically ceased and buyers came forward with fresh offers though for a long time the prices indicated by them were unacceptable.

"In the case of Madras City, the Piecegoods Merchants Association of this city inaugurated a three months boycott of foreign cloth to come into force on 5th May, but it was merely nominal, as within three weeks dealers were buying spot goods 'through the back door' while some dealers were also actually submitting firm offers for forward shipment. After a little more time had elapsed the 'backdoor purchases' ceased and straightforward buying was resumed.

"Considering the bad state of trade throughout the world and India in particular, the piecegoods and yarn sections of the Madras Presidency have not been unduly depressed. At the commencement of the year dealers and importers held heavy stocks at high prices but these have all practically been cleared off gradually throughout the year with the result that the end of the year saw stocks reduced to normal proportions and all purchases standing on a comparatively cheap basis.

"Stocks at the end of the year were very much lighter than at the beginning so that clearances were bigger than the total arrivals throughout the year. Deliveries throughout March and April were good, one of the reasons being that dealers were making every effort to reduce their holdings on account of

the political unrest throughout the length and breadth of India at that time. Nevertheless they would not have been able to have made such healthy reductions had there not been a good seasonal demand for foreign cloth and yarn throughout the Presidency. The prices realised for the March-April deliveries, however, were unsatisfactory as dealers were losing money though certain well-known standard goods were bringing in fair profits.

"With the inauguration of the boycott mentioned above, deliveries during May were very poor and the same conditions continued throughout June. Dealers, however, were not buying merely because of the political unrest but also because cotton was steadily falling and had been doing so since January. July saw an improvement particularly in the southern part of the Presidency though the northern markets like Bezwada, Masulipatam, Rajahmundry and Secunderabad still continued lifeless, these latter markets being in sympathy with the political influence of Bombay. The 'Onam' Festival however, which fell in August accounted for very good clearances to the Trivandrum and Alleppey Districts.

"'Deepavali' fell on 21st October and clearances in anticipation of that festival broadened out and were conducted on a very free scale throughout August and September and the early part of October. For the first time for many months goods were delivered straight from the ship side into consumption at profitable rates to dealers and stocks of piecegoods became distinctly light though yarns were not in such a good position.

"When American Cotton Futures fell below 6d. in August, dealers began to take more interest in the replacements. The fall, however, continued so steadily that dealers not knowing when the bottom would be touched, still held aloof. The result was that in September and October certain importers were reported to have taken a view of the market and as Spot American Cotton touched 5·54d. on 10th October there is little doubt these purchases were made on a cheap basis and history has subsequently shown that a fair proportion of these purchases have been sold profitably.

"Prints, however, have been exceptionally disappointing throughout the year and even purchases made at comparatively cheap rates are not moving well into consumption.

"After 'Deepavali' things became normally quiet but the expected revival in demand in November did not materialise owing to excessive floods throughout the Presidency resulting in the complete dislocation of road and rail traffic. December continued equally lifeless until the last working day of the year, December 29th, when very good clearances were effected in anticipation of the 'Pongal' festivities which fall on 13th and 14th January, 1931.

"It may be said that while dealers lost heavily during the first half of 1930 owing to the continuous fall in prices both of cloth and the raw material, they have, generally speaking, made money throughout the latter half of 1930 even though some of the purchases were made with cotton between 8d. and 9d.

"Several bazaar failures occurred during the early part of the year and dealers were forced to drastically curtail credit to their up-country sub-dealers."

*Delhi.*—The situation is described by a correspondent as follows:—

"The fiscal year 1930-31 will always be remembered by the mercantile community in India as the worst ever experienced in living memory and Delhi was by no means an exception to the conditions pertaining. The year opened under normal conditions which were rendered worse by the Congress activities. On the 11th April, 1930, at the instigation of the Congress, the piecegoods merchants of Delhi decided not to buy further foreign goods and also not to pay for any goods which had not passed the Customs barrier at the port on or before a certain given date. This naturally paralysed forward business in this commodity. The other step taken by the Congress was to exact pledges from piecegoods merchants not to sell their stocks and, to make the boycott

effective, they picketed the piecegoods shops, both wholesale and retail. Retail shops situated in stray and out of the way parts of the city particularly meant to meet the requirements of the rural population were also not spared. From May to August, 1930, the market played entirely into the hands of the Congress and the dealers could do no business. As the cold weather was approaching, some dealers who had heavy stocks on hand opened shops at the following places, viz. :—

Kishangarh State (Rajputana).  
 Rutlam State (Central India)  
 Dhuri (Punjab) Patiala State Territory.  
 Gwalior State (Central India).

where they were able to clear substantial quantities but on account of the heavy extra overhead charges which were incurred, very little profit, if any, was made.

“ Other shops were also opened in out of the way places in the city where sales were effected secretly. The result, however, has been that while people who had been doing business in foreign piecegoods for three generations got out of the trade, they were replaced by Mahomedans. It is noteworthy that Mahomedans in Delhi had only two or three wholesale shops whereas they have now about twenty.

“ The khaddar and the Indian-made mill cloth generally finds favour with the masses and there can be no denying the fact that the latter have considerably improved their turnout both as regards price and quality. The demand for imported goods is now confined to a limited section of the Indian community. The middle-class Hindu women also exclusively wear khaddar, even on gala occasions, and there have been many instances where wedding garments have been made of khaddar instead of costly silk goods.

“ The imports of piecegoods have been very small indeed during the period under review and it is estimated that the stocks now held by banks and merchants, are not more than a month's consumption in normal times. That India always wants cheap stuff is emphasised by the fact that despite all the cry of boycott, Japanese cotton and artificial silk fabrics have on account of their cheapness, found a ready market. This we consider is a most noteworthy point at the present time when the slogan is to ‘ Buy khaddar ’—it is immaterial to the average worker where his goods are manufactured and it is only price that counts.

“ In view of the financial and political situation and the decreased purchasing power of ryots, chances of the trade improving in the near future, are very remote.”

*Amritsar.*—A banking correspondent writes as follows :—

“ Imports of piecegoods into Amritsar during the fiscal year 1930-31 were considerably lower than for the preceding year. The intensive campaign for the boycott of foreign piecegoods by the Congress, which resulted in dealers cancelling contracts and in many cases undertaking not to import further goods for a considerable period, was largely responsible for this falling-off. The general trade depression and money stringency also contributed to this result.

“ The shortage of stocks and the difficulty dealers had in evading Congress picketers in making deliveries to their buyers, helped to keep up the price of goods during the greater part of the period under review. Towards the end of 1930 there was a slightly better feeling in the market and a fair number of orders were placed for Manchester goods. As these goods commenced to arrive prices sagged, and with the signing of the Delhi Pact prices dropped still further. Stocks are again beginning to accumulate and dealers, who have to sell on credit, are experiencing great difficulty in collecting their outstandings.

Deliveries from godown have been on a restricted scale recently, but from the beginning of September, 1931, it is expected that there will be a better seasonal demand.

" Since the latter part of last year there have been very large imports of Japanese artificial silk into this market, and this article still finds a ready sale at about 5 annas a yard. These goods have largely taken the place of British and Continental fancy goods."

*Cawnpore.*—An exchange banker in Cawnpore writes :—

" There seems no room to doubt that of late years Cawnpore has been losing its importance as a distributing centre in favour of Delhi and Amritsar. The latitude allowed to the Congress, which has many supporters in Cawnpore, has also helped to kill the trade, which hitherto has been in the hands of Hindus. Should Mahomedans take it up it may still thrive a little but, we consider, on a much smaller scale than in the past.

" During the last year, business in Cawnpore has been on a very restricted scale, and, with depressed prices, and in the absence of sales, dealers have sustained heavy losses. The outlook for foreign piecegoods is for the time being very uncertain, and we do not expect to see much fresh business for a long time to come. The former average annual total of imports in foreign piecegoods to Cawnpore was estimated to be in round figures about Rs.2 crores, of which one crore was imported directly by local importers, and the balance brought in from Calcutta, Bombay, Amritsar and Delhi, but, in the year under review the figures must have been a mere shadow as compared with previous years. Indian made piecegoods turnover is stated to be about Rs.6 to 7 crores average and it is possible that in the near future the figures of Indian piecegoods may increase at the expense of foreign piecegoods. Times are too uncertain for a reliable opinion to be formed, and until agricultural prices improve buying will only be hand to mouth and markets spasmodic.

" The general present condition of all markets is very depressed and uncertain. Until the political situation clears, and agricultural prices stiffen, we cannot visualise anything but a hand-to-mouth policy all round from buyers of commodities."

#### GENERAL FORECAST (AUGUST, 1931).

The market at the present time is dominated by a complete lack of confidence in the future which imbues not only bazaar operators but also, to a lesser extent, even the larger European importers. The present is usually the quiet season of the year and forward purchases would not normally be made until the end of September or early October in order to secure December/January/February shipment. The picketing movement has undoubtedly subsided in the principal centres, but is still reported to be active in certain of the up-country consuming markets, although it is believed to be, in the main, of a non-violent character. The fear of a revival of the boycott is, however, ever present in the minds of Indian dealers, who are frankly afraid of a fresh outbreak of violent picketing and regard the present quiet period as the result of a " Truce " rather than a settlement of the difficulty. They are also influenced by the lack of any sign of improvement in the general economic situation. Conditions among the agricultural population are desperate and there has so far been no check to the downward trend in the prices of India's primary products. The purchasing power of the people,

therefore, remains at the lowest level which has existed for decades and this is affecting the offtake not only of imported goods but also of mill products. Although stocks are comparatively light at the ports and practically non-existent in the consuming districts, these represent mainly goods which have been held for over a year and, allowing for accumulated charges and the high prices at which they were purchased, stand in at fully 25 to 40 per cent. above present replacement values. Moreover, dealers have still to face the settlement of these commitments and are loath to enter into forward transactions at a time when each downward movement in the raw cotton market depreciates still further the value of their existing stocks. Nervousness also still persists, in spite of reassuring statements by Government, with regard to the possibility of maintaining exchange even at its present level of 1s. 5 $\frac{3}{4}$ d. which is just above the lower gold point.

On the other hand, it must be admitted that stocks could be cleared within two months if the offtake really improved—in fact, the market is almost bare of many standard lines, particularly of bleached goods. The monsoon has, so far, been an abundant one and crop conditions are generally favourable. With middling American raw cotton futures on the basis of 3·77d. October and 3·87d. January and Manchester cloth quotations on an approximate parity with these rates, which would appear to be on a safe price-level for operations, there would seem to be a prospect for a revival when the buying season approaches at the end of September. In view, however, of the widespread lack of confidence in the economic and political future of the country, it is extremely doubtful whether the present year will see more than bare replacements of such goods as are in short supply and general hand-to-mouth purchases in order to keep marks and styles on the market.

**Raw Cotton.**—The following statement, taken from the *Indian Trade Journal*, compares the estimates of the total outturn of cotton in India for the last two years with the sum of exports and internal consumption. The figures are those supplied by the Indian Central Cotton Committee and refer in the case of mills in British provinces to Indian cotton alone. The estimate of mill consumption in Indian States refers to all cotton, but it has been ascertained from the Indian Central Cotton Committee that the amount of foreign cotton consumed in Indian States is negligible. Import figures have not therefore been taken into consideration for the purposes of the comparison set forth below. A conventional estimate has as usual been made for extra-factory or local consumption. It should be borne in mind that estimates of the “carry over” from one year to another have not been taken into account owing to complete information not being available regarding stocks\*.

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\*Stocks of cotton in Bombay were 894,000 bales on 31st August, 1929, and 770,000 bales on 31st August, 1930.

	Year ending 31st August.	
	1930	1929
	Thousand bales. (400 lbs.)	Thousand bales (400 lbs.)
Exports to United Kingdom ... ..	286	233
"  Continent (Europe excluding United King- dom) ... ..	1,505	1,429
"  China ... ..	555	456
"  Japan ... ..	1,409	1,722
"  other countries ... ..	113	93
Total ... ..	<u>3,868</u>	<u>3,933</u>
<i>Home consumption—</i>		
Mills† ... ..	2,373	1,992
Extra—factory or local‡ ... ..	750	750
Total ... ..	<u>3,123</u>	<u>2,742</u>
Approximate crop ... ..	6,991	6,675
Estimated in forecast ... ..	5,125	5,782
Excess (+) or deficit (—) neglecting carry over ...	+1,866	+893

†The figure of mill consumption is that compiled by the Indian Central Cotton Committee, Bombay, mainly on the basis of returns made under the Indian Cotton Cess Act.

‡Conventional estimate.

The next statement shows the stocks of cotton held by Indian mills on 1st August, 1930, and on 1st February, 1931 (in bales regardless of weight) and is published by the Bombay Millowners' Association:—

	Bombay City and Island.		All-India.	
	1-8-30	1-2-31	1-8-30	1-2-31
Cotton mill stocks (in actual bales re- gardless of weight)—				
(a) American (linters and waste not included) ... ..	7,125	12,544	14,292	13,041
(b) East India ... ..	168,409	146,224	808,850	693,783
(c) Egyptian ... ..	2,321	10,094	4,966	13,816
(d) Sundries ... ..	8,545	5,459	32,160	10,650
Total ... ..	<u>186,400</u>	<u>174,321</u>	<u>860,268</u>	<u>731,290</u>

Figures from the Cotton Census taken at the request of the International Federation of Master Cotton Spinners' and Manufacturers' Associations (Figures are approximations).

The subjoined table gives the imports of raw cotton into India during the past two years:—

Countries of consignment.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom ... ..	345	5	2,470	27
Persia ... ..	216	2	75	1
Egypt ... ..	511	8	21,343	2,17
Kenya Colony ... ..	19,039	2,81	22,693	2,88
Tanganyika Territory ... ..	571	7	892	10
U.S.A. ... ..	1,689	19	9,756	83
Other countries ... ..	1,609	20	1,235	13
Total ... ..	23,980	3,42	58,464	6,39

Whenever the margin between the price levels of American and Indian cotton is reduced, the Indian mills are always prepared to purchase considerable quantities of the American staple. This was a feature of the year 1927/28 and has been repeated in 1930/31. At the time of writing (August, 1931), Middling American Spot stands at 3·83*d.* and Egyptian F. G. Sakellaridis at 5·95*d.* We may therefore expect a further material increase in the imports of American and Egyptian cotton in the current year. The determination of the Indian mills to spin finer counts of yarn so that they may weave the finer fabrics and thus displace foreign imports of the higher grade cloths has also given a great stimulus to the imports of Egyptian and American cotton. It is probable that this movement will continue and we may reasonably expect to see a permanently increased demand from India for both these staples. The imports of raw cotton from the United Kingdom represent American cotton shipped from Liverpool. The greater portion of the imports are now shipped direct from the Southern States. The bulk of the imported East African cotton has hitherto been re-exported to Japan, the United Kingdom and other European markets. It is noteworthy, however, that in 1930/31 only 530 bales were re-exported as compared with 7,840 bales in 1929/30, again demonstrating the tendency of the local mills to use the finer raw material in order to produce the higher grade yarns and cloths.

**Cotton Sewing Thread.**—The imports were as follows :—

Countries of origin.	1929-30		1930-31	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom ... ..	1,999,751	69	1,649,128	52
Other countries ... ..	402,327	12	291,911	7
Total imports ... ..	2,402,078	81	1,941,039	59

Although the imports have declined owing to the economic depression and reduced consuming capacity, it is satisfactory that the

United Kingdom has retained a greater percentage of its trade than its principal foreign competitors—Holland and Austria. Sewing cotton, as such, is not manufactured in India but a certain amount of yarn imported in the hank, is then re-wound on reels in Bombay and sold as sewing cotton. The leading United Kingdom group is strongly organised and conducts the business from its four main depots in India. The sewing cotton trade is a good example of the fact that in trades where India is unable to manufacture the goods herself and where United Kingdom suppliers can meet other foreign competition, the boycott has had the minimum effect.

**Artificial Silk.—Yarns.**—The reduction of the imports of artificial silk yarns has not been so great as might be expected in view of the decision of many of the mills, particularly in Ahmedabad, to discontinue their use on political grounds. The heavy fall in prices is shown by the slight reduction in weight as compared with a material fall in value. The imports were :—

Countries of consignment.	1929-30		1930-31	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom ... ..	1,426,767	20	1,005,860	12
Germany ... ..	362,910	5	269,944	3
Netherlands ... ..	430,037	6	762,980	9
France ... ..	882,798	12	120,742	1
Switzerland ... ..	405,886	5	80,460	1
Italy ... ..	3,482,784	46	4,519,807	51
Other countries ... ..	361,824	5	359,993	4
<b>Total imports ... ..</b>	<b>7,353,006</b>	<b>99</b>	<b>7,119,786</b>	<b>81</b>

The average declared value per pound in 1930/31 was Rs.1-2-2 as compared with Rs.1-5-7 in 1929/30. Imports from Italy were valued on the average at Rs.1-1-11 per lb. while the average declared value of the United Kingdom product was Rs.1-3-1. Bombay and Madras are the greatest markets, the former for use in the mills and the latter feeding the handloom industry of Southern India. It is significant that whereas the Bombay takings fell by 270,000 lbs. those of Madras actually increased by 214,000 lbs.

**Piecegoods of Cotton and Artificial Silk.**—As might be expected on account of the depression coupled with the political agitation, the imports have fallen from 56,599,974 yards, valued at Rs.315 lakhs to 51,494,545 yards, valued at Rs.211½ lakhs. Here again the heavy fall in prices is clearly indicated. The quantities imported into the Bombay and Calcutta markets, which were most affected by the boycott agitation, have fallen considerably, whereas the quantities imported by Madras, Rangoon and Karachi show promising expansion.



Principal countries of consignment.	1929-30		1930-31	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
United Kingdom ... ..	7,226,794	42	2,406,605	13
Germany ... ..	777,285	10	300,066	4
Belgium ... ..	557,567	4	216,284	1
Switzerland ... ..	6,842,499	43	3,168,737	15
Italy ... ..	11,472,585	51	5,574,976	20
Austria ... ..	1,682,761	9	620,860	3
Japan ... ..	25,038,036	1,40	38,207,243	1,50
Other countries ... ..	3,002,447	16	999,774	5
Total ... ..	56,599,974	3,15	51,494,545	2,11

While the United Kingdom and its Continental competitors have been equally affected by the slump, the outstanding feature is the further increase in the imports from Japan, which now constitute 71 per cent. of the trade. Japanese standard "taffeta" and other qualities are now being substituted for many items of coloured cotton cloths on account of their phenomenally low price. Low price is the main factor in Japanese competition. Whereas the average value per yard of British artificial silk goods was Rs.0.53 (say  $8\frac{1}{2}$  annas or  $9\frac{1}{2}d.$ ) that of Japanese cloths was only Rs.0.39 (say  $6\frac{1}{4}$  annas or  $7\frac{1}{4}d.$ ). Japanese prices have been reduced still further during 1931 and the standard quality, after standing at 5 annas per yard for some time, was reduced to 4 annas per yard, a rate at which it is practically impossible to compete. It should be noted that almost all the Japanese fabrics imported are made throughout of artificial silk, whereas the United Kingdom and Continental qualities are admixtures of cotton and artificial silk. Since September, 1930, the Indian Customs Authorities have separately classified the two types and the following tables represent the imports of each during the seven months, September, 1930, to March, 1931.

*Piecegoods made entirely of Artificial Silk.*

Principal countries of consignment.	Seven months, September 1st, 1930, to March 31st, 1931.	
	Yards.	Rupees.
United Kingdom ... ..	94,710	88,495
Germany ... ..	13,979	17,545
Belgium ... ..	925	1,802
Switzerland ... ..	5,356	3,654
Italy ... ..	101,593	59,715
Austria ... ..	5,905	6,286
Japan ... ..	22,558,785	80,28,913
Other countries ... ..	298,460	1,07,962
Total ... ..	23,079,713	83,14,372

*Piecegoods made of Cotton and Artificial Silk.*

Principal countries of consignment.	Seven months, September 1st, 1930, to March 31st, 1931.	
	Yards.	Rupees.
United Kingdom ...	658,999	3,50,605
Germany ... ..	79,219	1,87,073
Belgium ... ..	63,223	49,494
Switzerland ... ..	811,020	3,26,517
Italy ... ..	2,245,704	7,06,246
Austria ... ..	145,623	62,955
Japan ... ..	854,269	2,69,945
Other countries ...	162,446	1,11,440
<b>Total ... ..</b>	<b>5,020,503</b>	<b>20,64,275</b>

**Flax Manufactures.**—The main types imported were as follows :—

Description.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Twist and yarn ... ..	—*	—†
Canvas ... ..	17	11
Piecegoods ... ..	3	2
Sewing thread ... ..	3	2
Other sorts, including bags and sacks ...	10	7
<b>Total imports ... ..</b>	<b>33</b>	<b>22</b>
	*4,473 rupees.	†31,441 rupees.

Details of the provenance of the imports are not yet available. In 1929/30 the United Kingdom supplied 96% of the whole trade, the balance including Rs.6,000 worth of flax canvas from Italy, Rs.20,000 worth of sewing thread from Austria, Rs.11,000 worth of miscellaneous flax manufactures from Germany and approximately Rs.5,000 each from Italy, China and Japan.

**Jute Manufactures.**—The imports of the higher-grade jute manufactures which are included under this heading have shown a continuous decline for some years. The figures are as follows :—

Countries of consignment.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
United Kingdom ... ..	7	3
Ceylon ... ..	15	12
Other countries ... ..	2	3
<b>Total imports ... ..</b>	<b>24</b>	<b>18</b>

In 1929/30 the United Kingdom supplied the whole of the Rs.4,000 worth of twist and yarn and also of the Rs.2 lakhs' worth of imported jute canvas. Ceylon, as usual, supplied over Rs.15 lakhs' worth of secondhand gunny bags re-exported from Australia and transhipped at Colombo. Of the Rs.2½ lakhs of miscellaneous

jute fabrics, the United Kingdom supplied over Rs.2 lakhs, the Straits Settlements, Belgium, France and Italy providing the balance.

**Silk Manufactures.**—The total imports of raw silk and silk manufactures, as might be expected in a period of greatly reduced purchasing power, show a marked decline. The imports of the various types were as follows :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Raw silk ... ..	1,23	88
Silk yarns, noils and warps ... ..	72	52
Goods of silk mixed with other materials ...	35	28
Silk piecegoods ... ..	2,22	1,26
Sewing thread ... ..	2	1
<b>Total imports ... ..</b>	<b>4,54</b>	<b>2,95</b>

China continued to supply practically all the raw silk. Of the yarns, noils and warps, Italy contributed 31%, China 25% and Japan 18%. Silk mixtures were drawn from Japan (66%), the United Kingdom (12%) and Germany (8%). The greatly reduced trade in silk piecegoods was again shared by China (Rs.60½ lakhs) and Japan (Rs.60 lakhs). The United Kingdom still supplies practically the whole of the imports of sewing silks imported. Bombay accounts for more than half the total imports but Rangoon is also an important market.

**Woollen Manufactures.**—The various types imported were as follows :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Worsted yarn for weaving ... ..	11	11
Knitting wool ... ..	19	14
Blankets and rugs (other than floor rugs)	51	37
Braids ... ..	1	*
Carpets and floor rugs ... ..	10	5
Hosiery ... ..	20	10
Piecegoods ... ..	2,33	1,20
Shawls ... ..	27	14
Other sorts ... ..	5	2
<b>Total imports ... ..</b>	<b>3,77</b>	<b>2,13</b>

\*42,561 rupees.

In 1929/30 the United Kingdom supplied 50% of the worsted yarn, the balance being drawn from Germany, Poland and France. Half of the total imports enter India through Karachi, the remainder through Bombay and Calcutta. Of the knitting wool, Germany supplied 73% and the United Kingdom 21%. Here again, Karachi is the principal market, followed in order by Bombay, Calcutta, Rangoon and Madras. Italy contributed 88% of the blankets and rugs (other than floor rugs), the United Kingdom 4% and Germany 4%. Germany supplied 66% of the relatively small imports of braids.

*Woollen Piecegoods.*—This valuable trade which, for many years, averaged over Rs.3 crores in value, has steadily declined since 1927/28 and the economic slump of last year resulted in a further diminution of nearly 50 per cent. The subjoined table gives the origin of the imports :—

Principal countries of consignment.	1929-30		1930-31	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
United Kingdom ... ..	3,732,331	91	2,040,433	48
Germany ... ..	1,151,506	25	490,703	8
Netherlands ... ..	245,184	8	121,985	4
Belgium ... ..	222,401	5	196,210	4
France ... ..	3,952,441	60	2,066,367	24
Italy ... ..	2,129,390	30	2,017,031	25
Japan ... ..	711,535	5	567,975	3
Other countries ... ..	416,087	9	217,696	4
Total imports ... ..	12,560,875	2,33	7,718,400	1,20

It may be fairly confidently stated that the reduced consuming power of the country is mainly responsible for the heavy fall in imports. All markets were affected with the single exception of Rangoon, where the trade actually increased slightly. The greatest reduction occurred in the case of Bombay and during the year the imports viâ Karachi for the first time equalled those of the older port. Calcutta was affected to a less degree. The heaviest reduction took place in the French goods, probably due partly to overstocking in previous years and partly to a decline in the higher priced qualities. The trade in Italian woollens has been remarkably well maintained, which tends to prove that there has only been a market for the very cheapest productions.

*Woollen Shawls.*—The heavy decline in the trade in 1929/30 has been followed by a still greater reduction in the year under review. The following are the figures :—

Countries of consignment.	1929-30		1930-31	
	Number.	Rs. (lakhs).	Number.	Rs. (lakhs.)
United Kingdom ... ..	73,101	3	14,147	1
Germany ... ..	290,247	16	222,294	9
Other countries ... ..	294,923	8	155,995	4
Total imports ... ..	658,271	27	392,436	14

Even before the war Germany controlled this trade. Of late years imports from France have shown a tendency to increase while shipments from Italy fluctuate from year to year. Calcutta is the principal market, followed, in order of importance, by Karachi, Bombay and Rangoon.

*Carpets and Floor Rugs.*—The year 1927/28, with a total import of over Rs.50 lakhs, mainly Italian goods, represents the peak year. Last year's heavy fall in the trade was followed by a further decline of over 50% in 1930/31.

Principal countries of consignment.				1929-30	1930-31
				Rs. (lakhs).	Rs. (lakhs).
United Kingdom	...	...	...	3	2
Italy	...	...	...	4	*
Persia	...	...	...	2	1
Other countries	...	...	...	1	1
Total imports				10	4

\*10,785 rupees.

The figures indicate that the trade in cheap Italian printed tapestry rugs has virtually ceased. The reduction in the United Kingdom share is entirely due to the general economic depression.

*Machinery and Millwork.*—Notwithstanding the severe depression and the heavy curtailment of the railway construction programme due to financial stringency, the total imports of machinery and millwork were only reduced from Rs.18'22 crores to Rs.14'35 crores. The boycott campaign, with minor exceptions as in the case of the Ahmedabad mills, scarcely affected the machinery trade, which is mainly conducted with Government Departments and the engineering industries of the country. It is feared, however, that the returns for 1931/32 will show a greater decline owing to the further curtailment of all Government purchases as a result of the urgent need for national economy, the virtual completion of most of the principal public works projects and the unprecedented depression in India's industries which precludes all extensions and renewals for some time. An exception may be made in the case of the Ahmedabad cotton mills which—owing to political feeling against imported piecegoods together with the effects of the increased tariff on all imported cotton goods—are enjoying a period of prosperity and are laying down new and highly efficient plants for spinning, weaving, bleaching, dyeing and finishing. The following table shows the origin of the imports during the past two years:—

Countries of consignment.				1929-30	1930 31
				Rs. (lakhs).	Rs. (lakhs).
United Kingdom	...	...	...	13,68	10,67
Germany	...	...	...	1,74	1,18
Belgium	...	...	...	18	14
Japan	...	...	...	6	5
U.S.A.	...	...	...	1,75	1,65
Other countries	...	...	...	81	66
Total imports				18,22	14,35

The next table shows the relative importance of the three principal suppliers before the war and during the past three years :—

Principal countries of consignment.	1913-14 Per cent.	1928-29 Per cent.	1929-30 Per cent.	1930-31 Per cent.
United Kingdom ... ..	90·0	76·5	74·7	74·3
U.S.A. ... ..	3·0	11·3	9·5	11·4
Germany ... ..	6·0	6·4	9·5	8·2
Other countries ... ..	1·0	5·8	6·3	6·1
	100·0	100·0	100·0	100·0

The maintenance by the United Kingdom of its position during a period of such stress provides further proof of the contention which has always been made in these reports that the United Kingdom machinery manufacturer enjoys a very high reputation in India for design, quality and service. His selling and technical organisation is, in most cases, second to none, and, provided that he is prepared to meet the changing and more exacting conditions of the market by adaptability in design, increased technical service on the spot and compliance with certain Indian political requirements such as locally registered companies with Indian representation on the Board, &c., I have little doubt that he will be able to maintain his position.

Although the United Kingdom percentage of the total remained virtually unchanged in 1930/31, there was a fall of Rs.3 crores in United Kingdom machinery owing to reduced imports of certain United Kingdom specialities such as railway locomotives, stationary steam and oil engines, boilers, cotton textile machinery, tea machinery and sewing and knitting machines. The U.S.A., on the other hand, has fairly well maintained her actual trade and improved her relative position by greater shipments of electrical machinery, oil-crushing and refining machinery and special types of cotton textile machinery. Imports from Germany were reduced under almost every heading and, notwithstanding recent German efforts to strengthen their local organisation, the depression has been such that Indian importers of even the cheaper types of industrial plant have not been in a position to operate. Competition from Switzerland in oil engines, pumping sets, &c., &c. is very keen.

The following brief analysis of the principal types of machinery imported will be of interest :—

*Cotton Textile Machinery.*

	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Cotton spinning machinery ... ..	1,24	1,24	1,13
„ weaving machinery ... ..	67	67	53
„ bleaching and dyeing machinery	4	3	2
„ printing machinery ... ..	*	†	‡
Other sorts ... ..	20	17	10
<b>Total</b> ... ..	<b>2,15</b>	<b>2,11</b>	<b>1,78</b>

\*Rs.31,124.      †Rs.7,757.      ‡Rs.71,133.

The provenance of the above imports was as follows :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	1,98	1,90	1,57
Germany ... ..	6	13	7
U.S.A. ... ..	5	2	2
Other countries ... ..	6	6	12
<b>Total</b> ... ..	<b>2,15</b>	<b>2,11</b>	<b>1,78</b>

German competition is largely confined to specialities such as cotton waste spinning machinery and the cheaper types of dobbies. The United States provides fair quantities of patent winders. "Other countries" include specialities from Holland, Poland and Japan. On the whole, the United Kingdom textile machinists hold their own despite the strong anti-British political movement in Ahmedabad and Bombay. This tends to show that where our manufacturers are able to provide the best types of machinery at competitive rates, they can overcome even such strong political prejudice as has been shown during the recent boycott movement. It is to be hoped that they will secure their fair share of recent mill extensions in Ahmedabad.

*Woollen Manufacturing Machinery.*—The reduced activity in the woollen mills at Cawnpore and Bombay is reflected in a diminution of the imports of machinery. Details are not yet available, but the figures of total imports were :—

1928-29	1929-30	1930-31
Rs.2 lakhs.	Rs.6 lakhs.	Rs.1 lakh.

*Jute Manufacturing Machinery.*—The acute depression which prevails in the Indian jute trade is shown in the statistics of the imports of jute mill plant.

1928-29	1929-30	1930-31
Rs.130 lakhs.	Rs.144 lakhs.	Rs.81 lakhs.

The trade is almost entirely in the hands of United Kingdom exporters, the only appreciable values of foreign plant imported in 1929/30 being Rs.83,615 worth from Germany and Rs.60,108 worth from the United States.

*Electrical Machinery.*—The subjoined table gives the main types of electrical plant imported during the last two years:—

	1929-30	1930-31.
	Rs. (lakhs).	Rs. (lakhs).
Control and switchgear ... ..	38	46
Generators, alternators and dynamos ... ..	44	42
Motors ... ..	44	44
Transformers ... ..	19	16
Turbo-generating sets ... ..	8	3
Other sorts ... ..	88	88
<b>Total ... ..</b>	<b>2,41</b>	<b>2,39</b>

The total trade was well maintained in spite of the depression. Although the important railway electrification schemes on the Bombay side are now completed, large contracts on account of hydro-electric projects in the Punjab, Madras and elsewhere have been placed during the year. Once these deliveries are made, however, there is likely to be a lull as neither the Central Government nor the Provincial Governments are prepared to embark on large capital undertakings until the financial situation clears. There is also a slowing down of the smaller power schemes for municipalities on account of financial stringency. The depression in Indian industries is also having its effect. On the whole, therefore, it would not be surprising to see a material reduction in the imports during 1931/32.

The provenance of the imports was as follows:—

Countries of consignment.	1928-29	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom ... ..	1,85	1,83	1,82
Germany ... ..	13	16	17
U.S.A. ... ..	26	20	29
Other countries ... ..	13	21	11
<b>Total ... ..</b>	<b>2,37</b>	<b>2,40</b>	<b>2,39</b>

United Kingdom manufacturers, largely on account of their admirable local sales, technical and service organisation, are meeting competition successfully, but both American and German competition is likely to become more acute in the future. The recent acquisition by United States capital of a large share in some of the principal electric supply companies in Western India may accentuate this. Prices for Indian business are still very closely cut and contracts for large power plants are frequently accepted at rates which show little if any profit.



*Boilers.*—The following were the imports :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	1,07	1,04	85
Germany ... ..	4	2	10
Other countries ... ..	4	3	2
<b>Total</b> ... ..	<b>1,15</b>	<b>1,09</b>	<b>97</b>

United Kingdom makers of watertube boilers are strongly represented by efficient branch organisations. Shippers of Lancashire and Cornish boilers are also well represented both in Calcutta and Bombay. The temporary lull in the development of large power projects coupled with stagnation in most Indian industries will probably tend to reduce the volume of the trade for the next year or so.

*Prime Movers (other than Electrical).*—The total imports were classified thus :—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
<i>Locomotives—</i>		
Oil engines ... ..	2	2
" (parts of) ... ..	1	—
Steam engines ... ..	16	7
" (parts of) ... ..	8	6
Railway locomotive engines and tenders and parts ... ..	1,97	1,30
Others ... ..	2	1
<i>Other than locomotives—</i>		
Gas engines ... ..	3	2
" (parts of) ... ..	1	1
Oil engines ... ..	1,04	68
" (parts of) ... ..	22	18
Steam engines ... ..	19	10
" (parts of) ... ..	34	14
Others ... ..	3	15
<b>Total imports</b> ... ..	<b>4,12</b>	<b>2,74</b>

The effects of the industrial depression are reflected under practically every item and for the first time for many years a reduced trade in oil engines is to be recorded. Details of the provenance of the imports for 1930/31 are not yet available, but it is estimated that United Kingdom makers supply over 80% of the trade. Increasing competition is being experienced from the United States and Germany in oil engines. The number of gas engines imported amounted to 186 in 1929/30, of which 135 were small gas engines from the United States imported into Burma.

*Agricultural Machinery.*—This trade which, last year, showed promising expansion, has received a setback as the following figures show :—

	1928-29 Rs.	1929-30 Rs.	1930-31 Rs.
Agricultural tractors and parts ... ..	7,57,371	8,35,506	5,19,724
Ploughs and parts ... ..	2,02,682	2,02,401	1,23,013
Others ... ..	4,68,046	4,60,811	2,03,563
Total imports ... ..	14,28,099	14,98,718	8,46,300

Details of origin are not yet available, but in 1929/30 the United States supplied 74% of the tractors, the United Kingdom contributing 18%. Of the ploughs and parts, the United States supplied 63% and the United Kingdom 35%. Of miscellaneous types of agricultural machinery, however, the United Kingdom sent 55%, the United States 17% and Germany 24%. Mention should again be made of the efforts which are being pursued by the Burmah-Shell Oil Storage and Distributing Co. of India, Ltd., to encourage the use of tractors and oil engines for agricultural purposes. It is feared, however, that the need for retrenchment both by the Government of India and by the Provinces will retard the activities of Government agricultural departments in stocking and distributing improved implements. As I have frequently stated, a total import of £63,000 of agricultural machinery in the case of a predominantly agricultural country such as India is pitifully inadequate.

*Mining Machinery.*—This is one of the few engineering import trades which shows an expansion in the year under review.

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	22	42
Germany ... ..	1	—
Belgium ... ..	2	1
U.S.A. ... ..	36	30
Other countries ... ..	—	1
Total ... ..	61	74

The United Kingdom normally supplies the bulk of the colliery plant but United States competition is very keen in the oilfields and in the non-ferrous mining industry in Burma and elsewhere.

*Metal Working Machinery (including Machine Tools).*—This classification mainly comprises machine tools of all types :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	23	24	22
Germany ... ..	2	3	2
U.S.A. ... ..	6	6	3
Other countries ... ..	2	2	3
Total imports ... ..	33	35	30

Thanks to efficient branch organisations, the leading United Kingdom groups of machine tool makers continue to hold their own. The partial completion and slowing down of the Indian railway programme of workshop rehabilitation will probably curtail the demand for heavy workshop tools during the next year or two while the industrial depression is seriously affecting the trade with the mills and works.

*Oil Crushing and Refining Machinery.*—Here again, the depression has, so far, had little effect, as shown by the following table :—

Country of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	24	29	24
Germany ... ..	11	10	6
U.S.A. ... ..	3	2	9
Other countries ... ..	2	1	1
<b>Total ... ..</b>	<b>40</b>	<b>42</b>	<b>40</b>

The principal port of entry is Calcutta. Bombay, Rangoon and Karachi also provide a market.

*Paper Mill Machinery.*—Since the erection of the mills of the Punjab Pulp and Paper Mills, Ltd. in 1927/28, there have been no developments on a large scale in the Indian paper industry. Imports have been as follows :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
34,60,279	7,08,342	7,32,040

In 1929/30, the last year for which detailed figures are available, the United Kingdom supplied 94% of the trade.

*Refrigerating Machinery.*—The expansion of recent years was more than maintained in 1930-31, imports being :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
22,99,753	20,24,229	22,24,267

Calcutta and Bombay are now provided with modern cold-storage accommodation, but the schemes for the provision of widespread cold-storage facilities in mofussil centres have not materialised. The almost universal use of the domestic refrigerator has opened up a large trade in United States types, which were first on the market and which have been energetically distributed. In 1929/30, the United States supplied 86% and the United Kingdom 11% of the total imports. United Kingdom makers of domestic apparatus are late in the field and will find their American competitors strongly entrenched.

*Rice and Flour Mill Machinery.*—The imports have been little affected by the depression :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	7	12	14
Germany ... ..	10	7	4
U.S.A. ... ..	2	3	1
Other countries ... ..	2	2	2
<b>Total</b> ... ..	<b>21</b>	<b>24</b>	<b>21</b>

It is satisfactory to note the increase in the United Kingdom share of the trade. Germany finds a considerable trade in the smaller types of rice mills both in Burma and in Bengal. United Kingdom flour-milling plant is still the standard.

*Sawmill and Woodworking Machinery.*

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	5	6	4
Other countries ... ..	2	3	3
<b>Total</b> ... ..	<b>7</b>	<b>9</b>	<b>7</b>

The United States has, in the past, competed very keenly for the sawmilling plants in Burma and elsewhere, while United Kingdom manufacturers supply most of the woodworking machines in the railway carriage and wagon shops. Germany supplies occasional machines, but the principal competitor is the United States.

*Sewing and Knitting Machines (including Parts).*—There has been a material decline in the total imports due mainly to the reduced purchasing power of the country and partially—in the case of United Kingdom machines—to the boycott propaganda. The imports of complete machines were as follows:—

Countries of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	57	55	40
Germany ... ..	19	16	12
Other countries ... ..	1	1	1
<b>Total</b> ... ..	<b>77</b>	<b>72</b>	<b>53</b>

It is noteworthy that, in spite of attempts to boycott United Kingdom machines in Western India, the import statistics have not fallen as sharply as might have been expected and German competitors have suffered almost as much. German machines to the number of 14,823 were imported during the year and in spite of the fact

that the two principal German manufacturers do not employ a service organisation in India, the machines sell on their low price. The value of the efficient and widespread organisation of the Singer Sewing Machine Co. with their depots, schools and hire-purchase arrangements was clearly demonstrated during the past difficult year. The following are the statistics of parts of sewing and knitting machines :—

1928-29	1929-30	1930-31
Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
13	13	5½

*Sugar Machinery*—Extensions of certain plants were made during the year and the trade advanced by 50%.

Countries of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	16	8	11
Other countries ... ..	1	1	3
Total ... ..	17	9	14

In 1929/30 "other countries" included small shipments from France, the United States and Germany. The Indian sugar industry is largely centred in the United Provinces and the Punjab. The principal ports of entry for machinery are Calcutta and Karachi. Future prospects for the industry appear to be somewhat brighter at the present moment and it is hoped that this improvement may be reflected in due course in larger purchases of plant.

*Tea Machinery.*—The depression in the tea industry is clearly shown in a further decline in the imports of machinery :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
39,65,221	28,47,123	16,82,268

There is stated to have been some increase in the manufacture in Calcutta of certain parts of machinery used in the tea factories. The imports are almost exclusively drawn from the United Kingdom.

*Typewriters.*—The imports were not affected either by the depression or by the political campaign :—

Countries of origin.	1929-30		1930-31	
	No.	Value (Rs.)	No.	Value (Rs.)
United Kingdom ... ..	1,206	1,93,017	1,040	1,78,809
United States ... ..	13,766	19,04,617	13,689	18,94,260
Other countries ... ..	802	95,159	815	1,17,073
Total ... ..	15,774	21,92,793	15,544	21,90,142

Until United Kingdom makers themselves organise an efficient distributing, sales and service organisation in India they cannot hope to improve their present position *vis-à-vis* United States competitors, who now, in addition, assemble some of their machines in the country.

*Other Sorts of Machinery.*—This comprehensive heading includes all types of machinery and plant not specially classified in the Customs returns. The total values were :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
3,80,98,971	3,11,64,197	2,15,59,976

In 1929/30 the United Kingdom contributed 61%, the United States 12%, Germany 10%, and Sweden 7%. Lesser values were obtained from Italy, Denmark and Japan. The rapid expansion of the imports of miscellaneous industrial plant from Germany and Sweden during the past five years has been remarkable.

**Iron and Steel.**—The following statement, giving the total imports of iron, steel and iron or steel into India during the past three years, clearly shows the force of the economic blizzard which is affecting, in greater or less degree, every business activity in the country :—

Total imports.	1928-29 Tons.	1929-30 Tons.	1930-31 Tons.
Iron ... ..	10,195	8,642	8,600
Steel ... ..	248,557	235,459	118,245
Iron or steel...	911,175	728,584	495,803
<b>Total</b> ... ..	<b>1,169,927</b>	<b>972,685</b>	<b>622,648</b>

The items principally affected have been galvanised sheets and plates, which—mainly on account of the depressed state of the jute growing districts of Eastern Bengal—fell by 110,120 tons; steel bars (a bazaar trade) which were lower by 81,885 tons; beams, channels, pillars, girders and bridgework (18,088 tons); iron or steel sleepers and keys (49,225 tons); rails, chairs and fish-plates (15,479 tons); plain sheets (22,402 tons) and tinned plates (13,914 tons).

#### *The Calcutta Market.*

The Committee of the Calcutta Import Trade Association, in their report for 1930, state :—

*“Galvanised Corrugated Sheets.*—During the year this market was in an extremely depressed state and shipments from the United Kingdom to Calcutta were the lowest recorded during the past seven years. They amounted to 63,308 tons as compared with 158,637 tons in 1929, 151,071 tons in 1928, and 195,317 tons in 1927. Prices fell from £13 7s. 6d. to £11 15s. 0d. per ton c.i.f. Calcutta, which was the lowest price quoted for thirty years. This considerable drop in price was due not only to the increased competition between manufacturers owing to lack of demand but also to extreme competition between British and Continental manufacturers. Belgian sheets imported into Calcutta amounted to 3,798 tons in 1930 as compared with 5,126 tons in

1929. The lack of demand for sheets was chiefly due to the depressed state of jute and consequent poverty in the jute districts of Eastern Bengal, which are the largest consumers of galvanised corrugated iron. In October, 1930, at the instigation of the Tata Iron and Steel Co., Ltd., the Government of India authorised the Tariff Board to hold an enquiry into the question of affording additional protection to galvanised sheets and as a result of their report the duty of Rs.30 per ton has been increased to Rs.67 per ton on all imported galvanised sheets as a protection to the Company's small annual output of only 25,000 tons.

*Structural Steel.*—The total imports of steel bars, joists, plates, etc., showed a very considerable decrease being only 159,071 tons as compared with 304,987 tons in 1929. This fall in imports was principally due to the general depression and also to the increased output of the Tata Iron and Steel Co., Ltd. The prices of both British and Continental makers were fairly steady for the first half of the year but weakened gradually during the second half.

*General.*—The general depression and particularly the slack state of all engineering trades and the suspension of works by Government departments and others was largely responsible for the decline. The consequent competition between manufacturers tended to weaken prices generally.

#### *The Bombay Market.*

The Collector of Customs, Bombay, in his report for the year 1930/31, states :—

"The total receipts from the United Kingdom fell further from 92,000 to 47,000 tons in quantity and from Rs.1·85 crores to Rs.95·42 lakhs in value and those from Belgium from 115,000 to 83,000 tons in quantity and from Rs.1·61 crores to Rs.1·16 crores in value. Arrivals from Germany and Luxemburg also declined. Receipts from France, however, increased from 8,500 to 10,200 tons in quantity and from Rs.9·67 lakhs to Rs.9·75 lakhs in value."

"A comparison of imports of protected articles of iron and steel with those of the preceding year discloses a falling-off under galvanised sheets from 72,000 to 45,000 tons representing almost entirely reduced supplies from the United Kingdom. The decreases under 'bars other than cast steel,' 'ungalvanised sheets,' and 'angle and tee steel' represent smaller receipts from all the principal supplying countries. Under 'beams, channels, pillars, girders and bridgework' imports fell from 25,000 to 20,000 tons owing to smaller arrivals from Belgium and the United Kingdom, and the fall under 'tinned sheets' was entirely due to reduced supplies from the United Kingdom. Imports of 'rails, chairs and fishplates,' however, improved owing to increased arrivals from Belgium."

**Production and Development of the Tata Iron and Steel Works.**—I am indebted to the Tata Iron & Steel Co., Ltd. for the following authoritative statement showing the production and the main items of development at Jamshedpur during the year ended 31st March, 1931 :—

#### *Production of Pig Iron—*

Number of furnaces in existence on 31-3-1931	...	...	5
			Tons.
Pig iron production	...	...	714,329
" used in works	...	...	602,223
Ferro-manganese produced for works' use	...	...	6,945

#### *Furnaces and Converters—*

			No. in existence
			on 31-3-1931
Bessemer converters, acid	...	...	3
Open hearth furnaces	...	...	10

	Tons.	
<i>Production of Ingots—</i>		
Open-hearth basic ... ..	243,875	
Duplex basic ... ..	380,664	
	No. in existence on 31-3-1931	
<i>Rolling Mills—</i>		
Cogging mills ... ..	2	
Rail heavy section mills ... ..	2	
Plate mills ... ..	1	
Light section, bar and merchant mills ... ..	4	
Sheet mills ... ..	9	
35in. roughing mill ... ..	1	
<i>Production of Semi-finished Steel—</i>		
Blooming mills ... ..	Tons. 533,614	
<i>Sheet Bar and Billet Mill—</i>		
(1) Billets ... ..	{ Rolled from blooms } { produced on the } { blooming-mills } { shown above }	117,406
(2) Sheet bars and sleeper bars ... ..		71,199
(3) Tin bars and wide flats ... ..		57,451
<i>Production of Finished Steel—</i>		
Rails 50 lbs. and over (first-class only) ... ..	111,715	
Rails 30 lbs. and under ... ..	1,845	
Fishplates (first-class only) ... ..	6,285	
Sleepers (first-class only) ... ..	2,237	
Angles, channels and tees ... ..	52,732	
Beams ... ..	31,184	
Rounds, squares, flats, octagons and tie bars ... ..	73,621	
Plates ... ..	34,737	
Sheets $\frac{1}{2}$ in. and under, other than galvanised sheets ... ..	23,040	
Galvanised sheets ... ..	26,450	
Blooms and billets for sale ... ..	2,801	
	<hr/> 366,647	
<i>Plus tie bars, sleeper bars, etc., for sale</i> ... ..	67,061	
	<hr/> 433,708	

*Blast Furnaces.*—"D" Furnace which was under relining and reconstruction for enlargement came into operation from 1st November, 1930.

The Tata Iron and Steel Co., Ltd., made a profit on the year of just under Rs.1 crore, which enabled them to set aside Rs.78 lakhs for depreciation on the plant and over Rs.2 lakhs for colliery depreciation. The dividend was paid on the first preference shares and Rs. 2/8 per share on the second preference capital. In spite of the depression the production of ingots and finished steel constituted records for the Company.

The Indian Iron and Steel Co., Ltd., on the other hand, experienced a most difficult year on account of the slump in world pig-iron prices.

## ORIGIN OF THE IMPORTS OF IRON AND STEEL.

The following statement shows the chief sources of supply of iron and steel with the percentage share of each country in the import trade:—



	United Kingdom.		Germany.		Belgium.		France.		United States.		Other countries.		Total.
	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	
1913-14 ...	609	59.8	200	19.6	173	17.0	2	0.1	22	2.2	12	1.3	1,018
1919-20 ...	269	63.0	1	0.2	13	3.1	—	—	135	31.6	9	2.1	427
1920-21 ...	498	70.0	15	2.1	69	9.7	2	0.3	113	15.9	15	2.0	712
1921-22 ...	280	45.7	60	9.8	160	26.1	9	1.5	84	13.7	20	3.2	613
1922-23 ...	359	48.1	90	12.1	229	30.7	7	1.0	38	5.1	23	3.0	746
1923-24 ...	429	56.7	61	8.0	217	28.7	5	0.5	18	2.4	26	3.7	756
1924-25 ...	439	50.5	88	10.1	273	31.4	16	1.8	17	2.0	36	4.2	869
1925-26 ...	489	55.3	69	7.8	229	25.9	45	5.1	23	2.6	29	3.3	884
1926-27 ...	406	48.1	79	9.3	257	30.4	33	3.9	29	3.4	41	4.9	845
1927-28 ...	685	57.2	79	6.6	316	26.4	48	4.0	16	1.4	53	4.4	1,197
1928-29 ...	650	55.5	70	6.0	333	28.5	54	4.6	18	1.5	45	3.9	1,170
1929-30 ...	486	49.9	58	6.0	312	32.1	35	3.6	16	1.6	66	6.8	973
1930-31 ...	269	43.8	44	7.2	207	33.7	29	4.7	15	2.4	50	8.2	614

The following statement shows the principal headings under which competition was encountered during 1930/31 :—

Description.	From the United Kingdom.	From United States.	From Belgium.	From Germany.	Total imports.
Steel bars (other than cast steel) ... ..	Tons. 20,408	Tons. *	Tons. 43,733	Tons. 2,794	Tons. 87,419
Beams, channels, girders, pillars and bridge-work ... ..	36,863	211	22,485	8,614	86,773
Nuts and bolts ... ..	2,572	160	3,815	895	8,917
Hoops and strips ... ..	12,226	*	12,838	3,457	33,349
Nails, rivets and washers	4,618	*	4,082	1,217	13,938
Cast pipes and fittings	2,458	*	172	*	3,001
Galvanised sheets and plates ... ..	91,373	1,898	48,150	*	147,432
Tinned plates ... ..	8,452	8,752	*	*	17,251
Plates not galvanised or tinned ... ..	25,940	50	11,361	756	39,331
Wrought tubes, pipes and fittings ... ..	17,012	822	3,556	5,835	37,757
Wire nails ... ..	195	*	5,624	2,072	12,409
Wire rope ... ..	2,659	54	*	*	3,287
Rails, chairs and fish-plates ... ..	3,827	*	4,848	*	10,586
Sleepers and keys of steel or iron for railways ... ..	2,256	*	13,860	*	16,534

\*Not separately distinguished.

Whereas the United Kingdom share has fallen from 49·9 to 43·8% of the total trade, the Belgian proportion has risen from 32·1 to 33·7%. Belgian competition has for years been acute in bars, structural sections, hoops and strips, steel sleepers, wire nails, &c., particularly where the British Standard Specification is not insisted upon. In my last report I drew attention to the severe competition in Belgian galvanised sheets. In spite of all handicaps in 1930/31 the Belgian shipments have only fallen by 2,800 tons whereas United Kingdom consignments are down by 108,922 tons. The Belgian "Minerva" brand has acquired a strong position in all markets, but in Bombay during the past year, owing to political feeling and the desire for cheapness, it has received particular attention. Belgian prices are usually from 5s. to 7s. 6d. per ton below United Kingdom rates and although dealers have, in the past, been prepared to pay a premium of about this amount for British quality, they are not able to do so in times of depression. The question calls for immediate action by the manufacturers concerned.

Luxemburg shipped 14,408 tons of steel bars while Sweden and Norway supplied 1,056 tons and 1,753 tons respectively of nails, rivets and washers. Competition from the United States is mainly encountered in the tin plate trade but was doubtless governed by the agreement of 1928 between the United Kingdom and

United States manufacturers whereby the combined exports of the two countries, with certain exceptions, are shared in the ratio of 70 and 30. The imports of galvanised sheets from the United States rose from 1,615 tons in 1929/30 to 1,898 tons in 1930/31. Reports from Rangoon state that they are popular in the Burma market on account of their bright spangle. The share of France has advanced from 3·6 to 4·7% mainly on account of shipments of bars (5,158 tons), structural steelwork (17,531 tons) and wrought tubes (2,078 tons). The competition of the Tata Iron and Steel Works is becoming increasingly felt in the bazaar trade.

The following brief comments under each heading analyse the position in 1930/31 as compared with the figures for the previous year :—

**Bars (other than Cast Steel).**—The imports during 1930-31 were only a little over half what they were in the two previous years. In 1929-30 the imports amounted to 169,304 tons valued at Rs.192½ lakhs, whereas in 1930-31 they only amounted to 87,419 tons valued at Rs.91½ lakhs. The United Kingdom share was reduced by 12,000 tons to 20,408 tons valued at Rs.30½ lakhs. The imports from Belgium declined from 81,517 tons valued at Rs.85½ lakhs to 43,733 tons valued at Rs.39 lakhs and those from Luxemburg from 38,011 tons valued at Rs.38½ lakhs to 14,408 tons valued at Rs.12 lakhs. There were also reduced shipments amounting to 2,794 tons valued at Rs.2½ lakhs and 5,158 tons valued at Rs.4½ lakhs from Germany and France respectively.

**Beams, Channels, Pillars, Girders and Bridgework.**—The total imports again showed a drop from 104,861 tons valued at Rs.132 lakhs to 86,773 tons valued at Rs.105 lakhs. The imports from the United Kingdom which amounted to 36,863 tons valued at Rs.62½ lakhs, were less by 15,000 tons than in the previous year. Belgian imports were reduced by 8,000 tons to 22,485 tons valued at Rs.19½ lakhs. In the case of Germany, the imports increased from 6,845 tons valued at Rs.7½ lakhs to 8,614 tons valued at Rs.7 lakhs. Imports from France were also increased from 14,110 tons (Rs.13½ lakhs) to 17,531 tons (Rs.14 lakhs).

**Bolts and Nuts.**—The total trade amounted to 8,917 tons valued at Rs.26½ lakhs as compared with 12,551 tons valued at Rs.39½ lakhs in the previous year. The United Kingdom share was 2,572 tons (Rs.9½ lakhs) as compared with 3,659 tons (Rs.14½ lakhs). Imports from Belgium decreased from 5,543 tons (Rs.12½ lakhs) to 3,815 tons (Rs.8 lakhs), those from Germany from 1,924 tons (Rs.6½ lakhs) to 895 tons (Rs.3½ lakhs), and those from the United States from 303 tons (Rs.1½ lakhs) to 160 tons (Rs.1 lakh). Imports from " other countries " on the other hand increased from 1,122 tons (Rs.4½ lakhs) to 1,475 tons (Rs.4½ lakhs).

**Fencing Materials (including Fencing Wire).**—All countries shared in the decrease in imports which amounted to 7,407 tons valued at Rs.18 lakhs as compared with 10,048 tons valued at Rs.26½ lakhs in the previous year. The shares of the different countries in 1930-31 were United Kingdom 992 tons (Rs.3½ lakhs), Germany 2,108 tons (Rs.5½ lakhs), and Belgium 2,393 tons (Rs.4½ lakhs).

**Hoops and Strips.**—The main part of the decrease from 39,218 tons valued at Rs.55 lakhs to 33,349 tons valued at Rs.43½ lakhs was borne by the United Kingdom whose share declined from 16,228 tons valued at Rs.24½ lakhs to 12,226 tons valued at Rs.17 lakhs. Imports from Belgium decreased from 17,248 tons (Rs.22½ lakhs) to 12,838 tons (Rs.16 lakhs), while imports from Germany increased slightly from 3,013 tons valued at Rs.4½ lakhs to 3,457 tons valued at Rs.4½ lakhs. Imports from " other countries " increased from 2,729 tons (Rs.3½ lakhs) to 4,828 tons (Rs.5½ lakhs).

**Nails, Rivets and Washers (other than Wire Nails).—**The total trade decreased from 16,682 tons valued at Rs.48½ lakhs to 13,938 tons valued at Rs.38 lakhs. The United Kingdom share fell from 6,398 tons (Rs.17 lakhs) to 4,618 tons (Rs.11½ lakhs). Belgium was the next biggest supplier with 4,082 tons (a drop of nearly 1,000 tons) valued at Rs.9 lakhs. The imports from Sweden were 1,056 tons (Rs.5½ lakhs), Norway 1,753 tons (Rs.5½ lakhs), Germany 1,217 tons (Rs.3 lakhs), and Netherlands 470 tons (Rs.1 lakh).

**Cast Pipes and Fittings.—**The total trade was only 3,001 tons valued at Rs.10½ lakhs as compared with 5,760 tons valued at Rs.15½ lakhs in the previous year. The United Kingdom share fell from 4,297 tons (Rs.12 lakhs) to 2,458 tons (Rs.9 lakhs). Belgian imports were only 172 tons valued at Rs.26,000 and imports from "other countries" 371 tons (Rs.95,000).

**Rails, Chairs and Fishplates (including those for Railways).—**The total trade was reduced from 26,065 tons valued at Rs.35½ lakhs to 10,586 tons valued at Rs.15½ lakhs. The bulk of the reduction was borne by the United Kingdom whose share fell from 17,680 tons (Rs.25½ lakhs) to 3,827 tons (Rs.7 lakhs). Imports from Belgium decreased from 5,360 tons (Rs.6 lakhs) to 4,848 tons (Rs.6 lakhs).

**Galvanised Sheets and Plates.—**Last year's returns showed a decrease from 326,237 tons to 257,552 tons. This year the imports have again been reduced to 147,432 tons valued at Rs.289 lakhs as compared with Rs.555½ lakhs in 1929-30. The whole of this reduction has been borne by the United Kingdom, whose imports fell from 200,295 tons (Rs.437½ lakhs) to 91,373 tons (Rs.184 lakhs). The imports from Belgium showed a slight decrease from 50,974 tons (Rs.103½ lakhs) to 48,150 tons (Rs.86½ lakhs). On the other hand, the imports from the United States have increased slightly to 1,898 tons (Rs.6½ lakhs) and from "other countries" to 6,011 tons (Rs.11½ lakhs).

**Tinned Plates.—**The total trade has been reduced from 31,165 tons valued at Rs.99½ lakhs to 17,251 tons valued at Rs.54½ lakhs. United Kingdom imports fell from 21,848 tons valued at Rs.68½ lakhs to 8,452 tons valued at Rs.25½ lakhs, while imports from the United States only decreased from 9,315 tons (Rs.31½ lakhs) to 8,752 tons (Rs.29½ lakhs).

**Sheets and Plates (not Galvanised or Tinned).—**The total imports were only 39,331 tons valued at Rs.53 lakhs as compared with 61,733 tons valued at Rs.82 lakhs in the previous year. United Kingdom imports amounted to 25,940 tons (Rs.38 lakhs) as compared with 45,187 tons (Rs.62½ lakhs) in the previous year. The imports from Belgium decreased by 3,000 tons to 11,361 tons valued at Rs.12½ lakhs.

**Sleepers and Keys of Steel or Iron for Railways.—**Due to the reduction in the amount spent on railway material and also to the fact that most of the Railway Board's requirements are now placed in India, the imports declined from 65,759 tons valued at Rs.64½ lakhs to 16,534 tons valued at Rs.19½ lakhs. The United Kingdom share fell from 10,396 tons (Rs.15 lakhs) to 2,256 tons (Rs.4½ lakhs), while that of Belgium decreased from 50,802 tons (Rs.45 lakhs) to 13,860 tons (Rs.14 lakhs).

**Wrought Tubes, Pipes and Fittings.—**Under this heading there has been a slight increase from 34,072 tons valued at Rs.101 lakhs to 37,757 tons valued at Rs.115 lakhs. The share of the United Kingdom was reduced from 17,867 tons (Rs.57½ lakhs) to 17,012 tons (Rs.52½ lakhs). The imports from Germany decreased from 6,294 tons (Rs.16½ lakhs) to 5,835 tons (Rs.16½ lakhs) and from France from 2,732 tons (Rs.6½ lakhs) to 2,078 tons (Rs.5½ lakhs). Imports from the United States declined from 1,531 tons valued at Rs.5 lakhs to 822 tons valued at Rs.3½ lakhs. On the other hand the imports from the Netherlands increased from 611 tons (Rs.1½ lakhs) to 1,571 tons (Rs.4½ lakhs) and from Belgium from 2,744 tons (Rs.6½ lakhs) to 3,556 tons (Rs.9½ lakhs). The imports from "other countries" also increased from 2,293 tons (Rs.6½ lakhs) to 6,883 tons (Rs.22½ lakhs).

**Wire Nails.**—There was very little change in the imports which amounted to 12,409 tons valued at Rs.19½ lakhs. The principal suppliers are Belgium with 5,624 tons (Rs.9 lakhs), Germany 2,072 tons (Rs.3½ lakhs) and "other countries" 4,518 tons (Rs.7 lakhs). The United Kingdom share is only 195 tons valued at Rs.43,000.

**Wire Rope.**—There was only a slight decrease from 3,335 tons valued at Rs.19½ lakhs to 3,287 tons valued at Rs.18½ lakhs. The United Kingdom share was 2,659 tons (Rs.15 lakhs) as compared with 2,898 tons (Rs.17½ lakhs).

**Aluminium.**—There has been a check in 1930/31 to the rapidly expanding trade in aluminium in all its forms, which has for many years followed the extension of the Indian hollow-ware manufacturing industry:—

	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
<i>Unwrought—</i>				
Ingots, blocks, bars ...	980	1	851	1
<i>Wrought—</i>				
Circles ... ..	157,576	1,28	119,038	91
Sheets ... ..	3,944	3	2,001	1
<i>Other manufactures</i> ... ..	8,525	11	6,445	7
Other imports ... ..	171,025	1,43	128,335	100

Particulars relating to the origin of the imports in 1930/31 are not yet available, but in 1929/30 58% of the unwrought ingots, &c., were obtained from the United States, 31% from the United Kingdom and 10% from Italy. Of the circles, 39% were drawn from the United States, 28% from the United Kingdom, 9% from France and 8% from Germany. Switzerland and Italy supplied lesser values. Sheets were obtained from the United States (52%), the United Kingdom (22%), Switzerland (14%) and Germany (5%). The imports of "other manufactures" comprising mainly wire and utensils, were received from Germany (32%), the United Kingdom (28%), Belgium (16%), and the United States (6%). The leading United Kingdom and United States groups are strongly represented in the country and keenly compete. During the past year the United States groups have increased their share considerably.

**Brass, Bronze and Similar Alloys.**—*Mixed or Yellow Metal for Sheathing.*—As might be expected in the case of a metal with such a wide sale in the bazaars, the trade suffered a severe setback during the past year of general depression:—

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom ... ..	82,491	43	42,174	19
Germany ... ..	231,884	1,13	218,554	88
Japan ... ..	47,893	26	45,772	21
Other countries ... ..	1,118	1	1,988	1
<b>Total imports</b> ... ..	<b>363,386</b>	<b>1,83</b>	<b>308,488</b>	<b>1,29</b>

Prior to 1926/27, United Kingdom rollers of yellow metal sheets regularly supplied the greater portion of the trade with annual shipments averaging over a crore in value. Germany, however, by producing a sheet at a lower price gradually obtained command of the market and seems likely to retain it.

*Other Manufactures (Wrought).*—The imports were:—

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Rods ... ..	6	5
Sheets ... ..	4	3
Tubes ... ..	1	1
Wire ... ..	5	3
Other sorts ... ..	22	21

**Copper (Wrought).**—The imports of wrought copper during the past two years have been made up thus:—

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Braziers ... ..	1	—
Sheets ... ..	63	78
Rods ... ..	6	4
Tubes ... ..	3	3
Wire (excluding telegraph and telephone wire) ... ..	2	2
Other manufactures ... ..	7	6

The next table gives the provenance of the imports:—

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom ... ..	32,234	22	43,605	25
Germany ... ..	47,754	31	55,000	28
Belgium ... ..	8,054	5	8,951	5
France ... ..	29,397	18	40,224	20
United States ... ..	1,547	1	31,043	14
Other countries ... ..	7,394	5	1,957	1
<b>Total</b> ... ..	<b>126,380</b>	<b>82</b>	<b>180,780</b>	<b>93</b>

It is satisfactory to note that the United Kingdom made a slight recovery.....

**German Silver (including Nickel Silver).**—A further decline in the total trade is to be recorded :—

	1928-29	1929-30	1930-31
Quantity (cwt.) ... ..	24,184	19,528	16,258
Value (Rs. lakhs) ... ..	21	17	13

**Railway Plant and Rolling Stock.**—As I stated in my last report the issue of combined statistics under this heading has been discontinued since April 1st, 1928. Rails and permanent-way material are now classified under iron and steel, locomotives appear under machinery (prime movers), while carriages and wagons are included under vehicles. As, however, it has always been the practice to bring them together in these reports, I propose to continue doing so in order to facilitate comparison with previous reports.

*State-operated Lines.*—The figures available from the Monthly Trade Returns for Government Railway Stores are now extremely meagre. No provenance tables are given, while large items such as steel sleepers and permanent-way material, locomotives, &c., are not even separately classified. The only separately classified statistics appearing in the monthly returns are :—

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Carriages and parts for railways ... ..	24	19
Wagons and parts for railways ... ..	11	6

*Company-worked Lines.*—The imports of railway material entering India as private merchandise on account of the Companies' lines were :—

*Rails, chairs and fishplates.*

Country of origin.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom ... ..	17,680	26	3,827	7
Belgium ... ..	5,360	6	4,848	6
Other countries ... ..	3,025	4	1,911	2
<b>Total ... ..</b>	<b>26,065</b>	<b>36</b>	<b>10,586</b>	<b>15</b>

*Sleepers and keys of steel or iron for railways.*

Country of origin.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom ... ..	10,396	15	2,256	5
Belgium ... ..	50,802	45	13,860	14
Other countries ... ..	4,561	4	418	*
Total ... ..	65,759	64	16,534	19

\*41,190 rupees.

*Railway locomotive engines and tenders and parts.*

Country of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	1,46	95
Germany ... ..	45	28
United States ... ..	4	4
Other countries ... ..	2	4
Total ... ..	1,97	1,31

*Railway carriages and parts.*

Country of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	96	65
Germany ... ..	3	1
Belgium ... ..	6	5
Other countries ... ..	5	5
Total ... ..	1,10	76

*Railway Wagons and Parts.*

Country of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	56	43
Germany ... ..	3	4
Belgium ... ..	13	7
Other countries ... ..	1	—
Total ... ..	73	54

The above figures clearly show that the London Offices of the Company-operated lines are now following the practice of the Government of India by purchasing in the cheapest market irrespective of country or origin.

**Motor Cars.**—The imports during the past two years have been as follows :—



	1929-30		1930-31	
	No.	Rs.	No.	Rs.
United Kingdom ...	3,758	96,54,282	2,884	71,03,499
Belgium ... ..	27	1,37,336	29	1,20,278
France ... ..	364	9,72,834	261	6,80,684
Italy ... ..	1,150	26,40,905	912	19,41,630
Canada ... ..	2,318	41,70,468	3,250	53,97,702
United States ... ..	9,620	1,95,17,626	5,098	1,00,40,723
Other countries ... ..	162	4,91,979	161	4,74,266
<b>Total ... ..</b>	<b>17,399</b>	<b>3,75,85,430</b>	<b>12,595</b>	<b>2,57,58,782</b>

It is somewhat remarkable that, in a year of such general depression, the fall in the total imports has not been greater than 27% and it is satisfactory to note that the imports from the United Kingdom are only 23% less than in the previous year. This is the first occasion during the past eight years on which it has not been possible to record a steady advance in the number of United Kingdom cars imported. In the circumstances, however, it must be admitted that United Kingdom manufacturers have held their position fairly well. The reduction by nearly 50% in the value of United States cars imported reflects the reduced purchasing power of the masses. The expansion in the case of Canada is attributable, partly to greater activity on the part of the Ford Company, and partly to the fact that the Canadian figures were on an unduly low level last year. Before the establishment in 1928 by General Motors (India) Ltd. of an assembly plant at Bombay, their Chevrolet and Buick cars were imported as "set up" units from the Canadian factories. These vehicles are now imported in a "knocked down" state from the United States Works and are consequently registered as imports from the United States.

There is evidence that increasing attention is being paid to India by one or two United Kingdom motor manufacturers, but, in most cases, the local organisation is still quite inadequate. As I have repeatedly stated, the expansion of motor transport in India will increase at a more rapid rate now that serious attention is at last being given to the extension of roads throughout the country. The market, although temporarily depressed, is one of the most promising ones in the Empire and will amply repay all the attention and care that can be given to it.

The following statement shows the number of motor vehicles registered in British India up to 31st March, 1931:—

Provinces.	Motor cars, including taxi-cabs.	Motor cycles including scooters and auto-wheels.	Heavy motor vehicles (lorries, buses, etc.)	Total.
	No.	No.	No.	No.
Bengal, including Calcutta ...	33,220	4,849	4,128	42,197
Bombay City ...	(a) 8,336	(a) 499	(a) 873	(a) 9,708
Bombay Presidency (excluding Bombay City and Sind)	(a) 9,027	(a) 772	(a) 70	(a) 9,869
Madras City ...	12,331	3,013	1,902	17,246
Madras Presidency (excluding Madras City) ...	7,752	1,873	7,632	17,257
United Provinces ...	12,015	2,120	5,358	19,493
Punjab ...	11,666	4,216	7,474	23,356
Burma ...	(b) 11,459	(b) 1,312	(b) 7,119	(b) 19,890
Bihar and Orissa ...	9,005	1,242	2,237	12,484
Central Provinces ...	5,210	1,061	2,524	8,795
Sind ...	4,024	1,081	157	5,262
Delhi ...	5,706	1,114	1,272	8,092
North-West Frontier Province ...	3,066	1,354	2,059	6,479
Ajmer-Merwara ...	550	152	181	883
Assam ...	(c) 2,169	(c) 306	(c) 1,679	(c) 4,154
<b>Total ...</b>	<b>135,536</b>	<b>24,964</b>	<b>44,665</b>	<b>205,165</b>

(a) Represent number of vehicles re-registered during the year ended 31st March, 1931.

(b) Represent number actually running during the year 1930-31.

(c) Relate to the year ended 31st December, 1930.

### Motor Cycles.

Countries of consignment.	1929-30		1930-31	
	No.	Rs.	No.	Rs.
United Kingdom ...	1,842	10,42,831	1,395	7,58,649
United States ...	35	24,421	53	34,996
Other countries ...	79	33,860	53	19,911
<b>Total ...</b>	<b>1,956</b>	<b>11,01,112</b>	<b>1,501</b>	<b>8,13,556</b>

The increased sales of machines from the United States was mainly their higher grades such as are purchased by the Police Authorities in India. United Kingdom makes still maintain their position in the general trade, which has now been fairly stationary for several years and is likely to remain so until the Indian becomes more mechanically minded and there is a considerable extension and improvement in the roads of the country.

**Motor Omnibuses, Vans and Lorries.**—There has been a setback from 15,306 vehicles in 1929/30 to 8,913 vehicles in the year under review. The vehicles were imported as follows :—

		1929-30	1930-31
		Number.	Number.
Vehicles imported with bodies ... ..		4,965	2,983
Chassis ... ..		10,341	5,930

The next table gives the provenance of the imports :—

Countries of consignment.	1929-30		1930-31	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom ... ..	398	18	258	15
Canada ... ..	2,799	46	2,397	36
United States ... ..	12,017	1,76	6,197	89
Other countries ... ..	92	2	61	1
<b>Total imports ... ..</b>	<b>15,306</b>	<b>2,42</b>	<b>8,913</b>	<b>1,41</b>

All suppliers have shared in the reduction but the falling-off in Canadian vehicles has been the least pronounced. The average value of the United Kingdom vehicle has increased owing to a larger proportion of heavy 'bus chassis which have been imported in Calcutta. The general position in India remains largely unchanged and, as I stated last year, apart from the large cities such as Calcutta and Bombay where the tramways and other transport companies operate fleets of heavy vehicles, which are mostly of United Kingdom manufacture, the services throughout the country are almost exclusively equipped with light vehicles of the American type. The reason for this is that the Indian who promotes a transport organisation has usually only a limited amount of capital. He is therefore attracted by cheap United States and Canadian vehicles, which he usually purchases on the hire-purchase system, runs them to death and scraps them after a couple of years or so, thus avoiding the necessity for any repair and maintenance organisation. So long as these conditions prevail and due weight is not given to the longer life of the United Kingdom vehicle, it is difficult to see how United Kingdom types can obtain an entry into this business. Wherever transport companies are operated on modern scientific lines and attention is given to maintenance and repairs, the United Kingdom truck has a better chance, but such companies are still comparatively rare in India.

**Cycles (other than Motor Cycles and parts thereof) and Accessories.**—The imports under this heading, for the first time since 1924/25, fell below a crore of rupees in value. It was evident in 1929 that the cycle boom was approaching its end. The reduced purchasing power of the community during the past year and, to a

lesser extent, the boycott propaganda, have had their effect and the total imports fell to Rs.72 lakhs.

The figures are :—

	1928-29	1929-30	1930-31
Cycles imported entire or in sections ...	No. 163,432	No. 142,052	No. 53,472
Values of parts of cycles and accessories (excluding rubber tyres) ... ..	Rs. (lakhs). 61	Rs. (lakhs). 60	Rs. (lakhs). 51

The aggregate imports of cycles, parts and accessories were drawn as follows :—

Countries of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	1,07	97	47
Germany ... ..	17	13	11
Other countries ... ..	5	9	14
Total ... ..	1,29	1,19	72

The United Kingdom share fell from 81 to 65% whereas that of Germany rose from 11 to 15%. "Other countries" mainly include Japan and France. Once again, attention should be called to the increased trade in Japanese frames and other parts, which are imported at remarkably low rates and are assembled in the bazaars. I have constantly had to refer to the very prevalent practice, among certain Indian firms who assemble, of attaching the transfer of a well-known United Kingdom make and selling the machine as a United Kingdom one. It is to be hoped that the local representatives of United Kingdom firms will prosecute in every case where they can establish proof.

**Provisions.**—There has been a noteworthy decline in the total trade due to reduced imports of such semi-luxury articles as biscuits, condensed milk, milk foods, and canned fish and also to a further falling-away in the trade in vegetable products (vegetable ghee, vegetable fats, or solidified vegetable oils as they are popularly known). The diminution in the trade is almost entirely attributable to reduced purchasing power among those classes of the population who constitute the principal consumers. The further decline in the demand for vegetable products has also probably been affected by the agitation, carried on largely by interested parties, against their use.

The subjoined table gives the source of the imports of provisions during the past two years :—

Countries of consignment.				1929-30	1930-31
				Rs. (lakhs).	Rs. (lakhs).
United Kingdom	...	...	...	2,35	1,94
Netherlands	...	...	...	1,57	1,27
Straits Settlements (including Labuan)	...	...	...	32	31
China (including Hongkong)	...	...	...	16	15
United States	...	...	...	48	40
Australia	....	...	...	9	9
Other countries	...	...	...	66	71
Total	...	...	...	5,63	4,87

After eliminating Rs.109 lakhs' worth of vegetable product (which is non-competitive) from Holland and also the imports consisting of Oriental produce, from the Straits Settlements and China we find that the United Kingdom supplied 58½% of the competitive trade as compared with 60% in 1929/30.

The most important articles imported were the following :—

Principal articles.				1929-30	1930-31
				Rs. (lakhs).	Rs. (lakhs).
Bacon and ham	...	...	...	16	14
Biscuits and cakes	...	...	...	55	40
Butter	...	...	...	4	5
Canned or bottled fruits	...	...	...	14	12
Tinned or canned fish	...	...	...	26	18
Vegetable products (vegetable ghee, vegetable fat, etc.)	...	...	...	120	109
Other canned and bottled provisions	...	...	...	67	62
Cheese (including canned)	...	...	...	11	10
Cocoa and chocolate...	...	...	...	3	4
Confectionery	...	...	...	26	20
Farinaceous foods in bulk	...	...	...	41	36
Milk foods for infants and invalids	...	...	...	37	26
Other farinaceous foods	...	...	...	24	23
Jams and jellies	...	...	...	8	6
Milk, condensed and preserved, including milk cream	...	...	...	88	79
Pickles, chutnies, sauces and condiments...	...	...	...	5	4

**Liquors.**—*Ale, Beer and Porter.*—The following table gives the imports, both quantities and values, during the past two years :—

Countries of consignment.	1929-30		1930-31	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom	3,148,384	69	3,016,868	64
Germany	1,048,282	30	898,436	25
Netherlands	336,809	7	369,237	7
Japan	288,218	4	279,387	5
Other countries	41,833	1	46,187	1
Total	4,863,526	111	4,610,115	1,02

During the year 1929/30, 1,718,000 gallons of beer were imported in bulk, mainly for the use of British troops; the United Kingdom supplied 1,691,000 gallons or 98 per cent. Of the beer imported in bottle, amounting to 2,936,000 gallons, the United Kingdom shipped 42%, Germany 36%, the Netherlands 11% and Japan 9%. The imports of stout and porter, amounting to 209,000 gallons, were almost entirely drawn from the United Kingdom.

*Spirits.*—The following table shows the quantities and values of the principal kinds of spirit imported into India :—

Description.	1929-30		1930-31	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
Brandy ... ..	438,890	47	346,908	39
Gin ... ..	121,428	11	126,748	11
Liqueurs ... ..	19,165	3	14,069	2
Rum ... ..	205,922	3	32,100	1
Whisky ... ..	545,893	93	512,609	88
Spirit present in drugs ... ..	157,548	45	119,395	34
"  perfumed ... ..	13,749	11	10,158	8
"  denatured ... ..	853,910	10	1,117,463	12
Other sorts ... ..	57,404	13	38,542	9

The next table shows the countries of consignment of all spirits :—

Countries of consignment.	1929-30		1930-31	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom ... ..	760,532	1,41	708,220	1,25
Germany ... ..	59,916	6	36,415	5
France ... ..	426,228	53	339,267	42
Java ... ..	1,053,769	12	1,144,357	12
United States ... ..	66,130	19	56,956	16
Other countries ... ..	47,334	5	32,777	4
Total ... ..	2,413,909	2,36	2,317,992	2,04

The imports of spirit have been fairly well maintained, regard being had to the reduced purchasing power of the country. The heavy increase in the import duties in March, 1931, coupled with enforced economy on the part of practically all Europeans in India, will probably result in a heavy fall in 1931/32.

The imports of brandy are almost entirely drawn from France with small quantities from the United Kingdom and Germany. Of a total import in 1929/30 of 545,893 gallons of whisky, the United Kingdom supplied 539,914 gallons. Germany supplied 4,944 gallons mainly in the form of cheap spirit for bazaar consumption. Gin was almost entirely drawn from the United Kingdom, the Netherlands contributing 12,443 gallons of "Hollands" gin. Of the spirit present in drugs the United Kingdom supplied

46%, the United States 40%, with lesser values from France and Germany. Perfumed spirit was drawn from the United Kingdom (41%), France (37%) and Germany (16%). Java supplied practically the whole of the spirit which was denatured at Indian Custom Houses immediately on arrival and before clearance.

*Wines.*—The imports of wines fell from 289,632 gallons valued at Rs.29 lakhs in 1929/30 to 246,079 gallons valued at Rs.24 lakhs. Of the total imports in the former year, the United Kingdom supplied 35%, France 38%, Italy 8%, and Portugal 4%. Imports from the United Kingdom represent almost entirely British re-exports from French, German, Portuguese and Spanish sources.

*Paper and Pasteboard.*—The total imports showed a decline from 2,740,400 cwt. valued at Rs.372 lakhs in 1929/30, to 2,293,840 cwt. valued at Rs.287 lakhs in the year under review. The sub-joined table shows the percentage shares of the principal countries in the total imports:—

	1913-14 (pre-war year)	1929-30	1930-31
	Per cent.	Per cent.	Per cent.
United Kingdom ... ..	56·2	32·8	31·2
Norway ... ..	5·1	14·2	15·0
United States ... ..	0·8	2·2	4·5
Sweden ... ..	3·2	10·3	10·4
Netherlands ... ..	2·5	7·0	7·0
Japan ... ..	1·0	2·8	3·9
Germany ... ..	17·3	12·0	9·7
Austria ... ..	8·3	9·1	10·3
Other countries ... ..	5·6	9·6	8·0
Total ... ..	100·0	100·0	100·0

*Packing Paper.*—After a satisfactory advance last year, the trade has received a sharp setback.

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom ... ..	15,309	4	16,972	4
Sweden ... ..	106,424	19	105,092	17
Norway ... ..	10,195	2	13,039	2
Germany ... ..	65,490	10	38,406	5
Netherlands ... ..	19,966	3	10,958	2
Austria ... ..	29,103	5	18,077	3
Other countries ... ..	40,363	7	28,814	5
Total ... ..	286,850	50	231,358	38

United Kingdom makers find it difficult to compete with Scandinavian manufacturers, who control large resources of cheap pulp. Imports from Germany largely represent Scandinavian papers re-exported from Hamburg. "Other countries" include Belgium and Czechoslovakia.

*Printing Paper.*—This important heading includes about equal quantities of news-printing papers and other sorts. Here again a material decline in the trade has to be recorded.

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom ... ..	97,520	21	76,679	16
Sweden ... ..	50,041	8	35,319	5
Norway ... ..	258,709	34	241,805	30
Germany ... ..	90,849	14	54,214	9
Netherlands ... ..	43,934	8	44,386	8
Belgium ... ..	13,392	3	10,435	2
Austria ... ..	156,115	21	152,025	20
Other countries ... ..	94,960	14	68,350	9
<b>Total ... ..</b>	<b>805,520</b>	<b>1,23</b>	<b>683,213</b>	<b>99</b>

The above imports were divided according to their subjection to the protective duty as follows:—

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Protected ... ..	36	28
Not protected ... ..	87	71

The large imports of newsprint are mainly derived from Scandinavia and Austria, where large supplies of pulp are available. There is severe competition from Holland in Dutch printings and creamlaids owing to the fact that the cheaper grades of Dutch papers show a superior "bulk" to similar grades of paper manufactured in other countries. Details of this trade, collected in 1930, illustrated by samples, can be obtained on application to the Department of Overseas Trade.

*Writing Paper and Envelopes.*—The protective duty of one anna per pound on writing paper of all kinds affords a great stimulus to Indian mills, particularly during periods of low prices.

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom ... ..	79,174	31	54,980	23
Sweden ... ..	11,554	3	10,746	2
Norway ... ..	65,821	14	35,207	8
Germany ... ..	22,462	6	12,986	3
Netherlands ... ..	24,979	5	15,862	3
Other countries ... ..	40,917	10	27,539	7
<b>Total ... ..</b>	<b>244,907</b>	<b>69</b>	<b>157,320</b>	<b>46</b>



A very full report, illustrated by samples, on the Indian market for papers of all kinds was issued by the Department of Overseas Trade in December, 1930. United Kingdom manufacturers interested in the details of the trade should apply for a copy.

*Miscellaneous.*

	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Old newspapers in bags and bales ...	39	46	37
Other kinds of paper ... ..	30	34	27
Paper manufactures ... ..	13	13	12

Until recent years the United Kingdom practically monopolised the trade in old newspapers, but since 1923, the United States increased her shipments until, in 1926/27 she supplied 30% of the total. Shipments from the United States, however, have shown a steady decline from the peak figures of 1926/27 and in 1929/30 only represented 8% of the total.

**Chemicals and Chemical Preparations** (*excluding Chemical Manures and Medicines*).—It is most satisfactory to note that the steady advance in the imports of chemicals, which has been a marked feature of recent years, has only been slightly retarded during 1930/31. The total imports were :—

	Rs. (lakhs).
1925-26 ... ..	2,03
1926-27 ... ..	2,44
1927-28 ... ..	2,64
1928-29 ... ..	2,48
1929-30 ... ..	2,79
1930-31 ... ..	2,61

The following table shows the position of the principal countries during the years 1928/29 and 1929/30, the last years for which details of provenance are available :—

Principal countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).
United Kingdom ... ..	1,47	1,59
Kenya Colony ... ..	6	7
Norway ... ..	4	5
Germany ... ..	41	44
Netherlands ... ..	5	6
Belgium ... ..	4	4
Italy ... ..	14	21
Japan ... ..	4	5
United States ... ..	12	12
Total imports (all sources) ... ..	2,48	2,79

The next table gives the percentage share of the principal countries of consignment over a period of years :—

	1913-14 (pre-war year)	1928-29	1929-30	1930-31
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom ... ..	74·7	59·4	57·2	54·0
Germany ... ..	12·4	16·7	15·7	18·3
United States ... ..	0·3	4·7	4·2	5·2
Italy ... ..	5·2	5·8	7·6	7·3
Kenya Colony ... ..	—	2·5	2·6	2·3
Norway ... ..	0·5	1·7	2·0	1·6
Japan ... ..	1·5	1·4	1·9	1·7
Other countries ... ..	5·4	7·8	8·8	9·6
Total ... ..	100·0	100·0	100·0	100·0

The reduction in the United Kingdom share of 3% is due to diminished imports of sodium carbonate and, to some extent, to the boycott movement in western India. The competition which is being met from the German "I.G." working through the Havero Trading Co. is becoming increasingly acute. The Havero Trading Co. now undertake the distribution of Russian alkalis, trial shipments of which, at very low prices, have been made to the principal consuming centres. Though these imports from Russia have not yet assumed large proportions, they have had a depressing effect on prices and have become a disturbing factor in the market.

**Dyeing and Tanning Substances.**—*Dyes obtained from coal-tar Alizarines.*—Sources of importation were:—

Countries of consignment.	1929-30		1930-31	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom ... ..	1,404,684	7	723,741	4
Germany ... ..	3,584,571	18	2,369,593	12
Netherlands ... ..	212,750	1	1,008	—
Belgium ... ..	112	—	—	—
Other countries ... ..	125,538	1	146,945	1
Total ... ..	5,327,655	27	3,241,287	17

The imports from "other countries" are almost entirely drawn from the United States.

*Anilines.*

Countries of consignment.	1929-30		1930-31	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom ... ..	989,614	14	821,045	12
Germany ... ..	9,171,076	1,02	9,494,354	1,28
Netherlands ... ..	80,620	1	23,116	—
Belgium ... ..	54,930	1	58,864	1
France ... ..	33,062	1	65,870	2
Switzerland ... ..	706,557	19	486,895	16
Italy ... ..	736,309	7	685,665	8
United States ... ..	1,510,606	15	1,165,993	13
Other countries ... ..	31,667	—	27,087	1
Total imports ... ..	13,319,441	1,60	12,828,889	1,81

The greater activity in the Bombay and Ahmedabad mills is reflected in increased importations of dyestuffs. Germany has been able to improve her commanding position *vis-à-vis* her principal competitors and has probably been able to take some advantage of the anti-British political propaganda which has been so rife throughout the Bombay Presidency. It is to be hoped that United Kingdom dyestuffs will secure an increasing share of the Indian demand which is bound to expand with the development of the country's textile industries.

**Soap.**—After attaining a record figure of over Rs.167 lakhs (£1,250,000) in 1929/30, the importation of soap has shown a very material decline to Rs.112 lakhs (£840,000) in the year under review. While this reduction is primarily due to the effect of the general depression, there is no doubt whatever that it was intensified by the boycott campaign. A great fillip was given to soap production in India, as indeed the increased imports of caustic soda suggest. The figures were:—

Description.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Household and laundry soap	383,656	1,11	287,127	76
Toilet soap ... ..	50,862	51	32,354	31
Other sorts ... ..	13,421	5	12,841	5
Total imports ... ..	447,939	1,67	332,322	1,12
<i>Of which from—</i>				
United Kingdom ... ..	393,629	1,46	295,485	98
Other countries ... ..	54,310	21	36,837	14
Total ... ..	447,939	1,67	332,322	1,12

So far as household and laundry soaps are concerned, United Kingdom makers are *hors concours* thanks to the excellence of their productions and to their efficient selling organisation. In 1929/30 the only competition experienced was from France (30,852 cwt. valued at Rs.6½ lakhs). In toilet soaps, however, the United Kingdom in 1929/30 supplied 75%, the United States 14%, Germany and France each 2%. The United States productions are extensively advertised and are actively pushed by travellers and agents.

**Paints and Painters' Materials.—Paints and Colours.**—There has been a sharp fall in the total imports, almost entirely due to the trade slump. In view of the growing paint industry in India, which is being developed in modern plants by some of the leading United Kingdom makers, there is not likely to be any considerable future expansion in the import trade. The position is as follows :—

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom ... ..	251,028	75	188,690	54
Germany ... ..	97,664	11	125,059	10
Japan ... ..	14,137	3	21,986	4
United States ... ..	19,420	9	9,538	5
Other countries ... ..	110,452	16	107,758	13
Total imports ... ..	492,701	1,14	453,031	86

German and Japanese competition is keen in the cheaper paints for bazaar use. Japan supplies red lead while the United States supplies directly competitive goods for the trade with the Railways and Industries.

**Painters' Materials.**—These comprise :—

Description.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Genuine turpentine ... ..	9,482	2	3,649	1
Turpentine-substitute ... ..	2,971	1	2,108	*
Varnish ... ..	37,199	21	34,143	18
Other kinds ... ..	Not recorded	9	Not recorded	7
Total ... ..	49,652	33	39,900	26

\*39,990 rupees.

In 1929/30 the United Kingdom supplied 44%, Sweden 32% and Germany 19% of the genuine turpentine. The small imports of

turpentine-substitute were almost entirely derived from the United Kingdom. The important varnish trade was supplied by the United Kingdom (87%), Germany (5%), and the United States (4%). The competition from the Indian branch works of one or two United Kingdom manufacturers will be increasingly experienced in future. The Indian railway carriage works provide a valuable market for United Kingdom varnishes.

**Drugs and Medicines (excluding Chemicals and Narcotics.)**—The principal items which are enumerated under this comprehensive heading are:—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Camphor ... ..	32	27
Asafoetida ... ..	1	2
Codliver oil ... ..	1	1
Proprietary and patent medicines ... ..	49	43
Quinine salts ... ..	29	23
Other sorts ... ..	1,14	98
Total imports of all kinds ... ..	<u>2,26</u>	<u>1,94</u>

The imports of camphor were largely shared by Germany and Japan. Asafoetida is obtained exclusively from Persia. Codliver oil is mainly obtained from the United Kingdom with lesser quantities from Holland and Germany. The valuable trade in proprietary and patent medicines in 1929/30 was divided between the United Kingdom (50%), Germany (15%), United States (13%), France (10%), Italy, Holland and Norway. Of the quinine salts, the United Kingdom supplied 52%, Germany 29%, Java and United States 4% and Holland 3%. Of the total trade in drugs and medicines in 1929/30 the United Kingdom contributed 42%, Germany 18%, Japan 12%, United States 10% and France 6%.

A boycott of United Kingdom drugs and preparations was experienced in the Calcutta and Bombay markets during the summer and autumn of 1930, which has had some effect on the imports during the year. Conditions at the time of writing (August, 1931), are greatly improved, however, and the principal difficulty now experienced is the general stagnation and lack of confidence. As I have repeatedly stated in these reports, United Kingdom manufacturers suffer most from the lack of a Pure Food and Drugs Act in India, as their competitors are able to compete with drugs which do not come up to the standard of the British Pharmacopœa, and for which there is no standard quality.

**Apparel (excluding Hosiery, Boots and Shoes).**—The following table shows the imports under each main heading:—

Article.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Apparel (including drapery, uniforms and accoutrements) ... ..	75	50
Gold and silver thread ... ..	37	20
Hats, caps, bonnets and hatters' ware ...	30	19
Lametta ... ..	7	6
Second-hand clothing ... ..	19	12
Waterproofed clothing ... ..	3	4
<b>Total imports of all kinds ... ..</b>	<b>1,71</b>	<b>1,11</b>

In 1929/30 the United Kingdom supplied 54% of the apparel, the principal competitors being Japan, Germany, Italy, the United States and France. Gold and silver thread were almost entirely drawn from France with increasing competition from Germany and Ceylon. Hats, caps, &c., were supplied by the United Kingdom (33%), Italy (33%), Czechoslovakia (16%) and Japan (8%). Lametta is virtually a monopoly of France and Germany. The considerable trade in second-hand clothing which was formerly held by United Kingdom shippers is steadily being lost to the United States. In 1929/30 United States shipments accounted for 70% and United Kingdom shipments for 28%. Karachi is the principal market, but imports via Bombay are increasing. The small imports of waterproofed clothing are almost entirely drawn from the United Kingdom. The provenance of the total imports was as follows:—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	59	34
Germany ... ..	17	13
France ... ..	36	22
Italy ... ..	12	6
Japan ... ..	19	18
United States ... ..	16	11
Other countries ... ..	12	7
<b>Total ... ..</b>	<b>1,71</b>	<b>1,11</b>

**Hosiery.—Cotton.**—The statistics record a heavy fall in the total imports:—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Stockings and socks ... ..	20	13
Underwear ... ..	1,19	74
Other sorts ... ..	5	1
<b>Total ... ..</b>	<b>1,44</b>	<b>88</b>
<i>Of which from—</i>		
United Kingdom ... ..	1	1
Japan ... ..	1,23	76
United States ... ..	4	2
Other countries ... ..	16	9
<b>Total ... ..</b>	<b>1,44</b>	<b>88</b>

The bulk of the imports may be considered to be non-competitive as United Kingdom manufacturers do not usually produce such low-quality articles as the bulk of the Japanese socks, singlets, &c., which are bought by the bazaars. Even the German makers find it difficult to compete with Japan although in 1929/30 they contributed Rs.6 lakhs' worth. It is remarkable that United States manufacturers of the higher-grade hosiery for European wear can, by dint of possessing well-known brands, which are extensively advertised, find a market where the United Kingdom was first in the field.

*Woollen.*—After remaining stationary for some time, the imports shrank by 50 per cent. in 1930/31.

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
20,05,958	20,04,313	9,72,448

Leicester manufacturers have a stronger position in the woollen hosiery market. In 1929/30 they supplied 82%, Germany 5% and France 6%. The principal ports of entry, in order of importance, are Karachi, Calcutta and Bombay.

*Haberdashery and Millinery.*—A decline of more than 25% took place in the total trade, which comprises the following headings:—

Articles.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Lace and embroidery ... ..	24	22
Towels not in the piece ... ..	15	9
Other sorts ... ..	65	42
Total ... ..	1,04	73

The provenance of the imports is as follows:—

Principal countries of consignment.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
United Kingdom ... ..	26	18
Germany ... ..	23	16
France ... ..	4	3
Switzerland ... ..	9	5
Italy ... ..	9	9
Japan ... ..	20	13
Other countries ... ..	13	9
Total ... ..	1,04	73

Imports of lace and embroidery, in the past largely a Swiss trade, now come from Germany (29%), Switzerland (19%), the United Kingdom (14%), Italy (16%), with lesser values from Austria and France. Of the towels not in the piece, 91% comprise cheap towels from Japan of a non-competitive grade. The United Kingdom sent 5%, almost all high grade towels. The comprehensive heading of "other sorts" was contributed to by the United Kingdom (33%), Germany (24%), Japan (9%), Italy (8%), Switzerland (5%),

and lesser values from Czechoslovakia, Austria, France and the United States.

**Boots and Shoes.**—The character of this trade has entirely changed during the past three years owing to the incursion of millions of pairs of Japanese shoes of the cheapest type, mostly either wholly of rubber or of canvas with rubber soles. Even during the past year of depression, when the imports of leather footwear fell sharply, imports of the rubber variety from Japan advanced from 4 to 10 million pairs. The following statement shows the position at a glance :—

	Pre-war average.	1927-28	1928-29	1929-30	1930-31
Pairs (in 1,000) ...	2,323	2,773	3,320	6,761	10,920
Rupees ,, ...	56,73	66,98	68,12	87,81	88,04

if the total quantities be divided into the total values it will be seen that the average price per pair of boots and shoes imported last year was approximately Rs.0·8 (say 1s. 2½d.). The provenance of the imports was as follows :—

Countries of consignment.	1929-30		1930-31	
	Pairs.	Rs. (lakhs).	Pairs.	Rs. (lakhs).
United Kingdom ... ..	634,291	22	244,943	11
Germany ... ..	551,727	7	203,671	2
Austria ... ..	219,308	3	33,754	—
Czechoslovakia ... ..	47,103	2	61,310	2
Japan ... ..	4,043,733	29	10,089,253	67
Canada... ..	548,683	10	70,187	2
United States ... ..	537,509	10	104,080	2
Other countries ... ..	179,011	4	113,330	2
Total ... ..	6,761,365	87	10,920,528	88

It will be observed that the average price of Japanese imported footwear was only Rs.0·66 (say one shilling) per pair. The total imports were divided, according to kinds of boots and shoes as follows :—

	1929-30		1930-31	
	Pairs.	Rs. (lakhs).	Pairs.	Rs. (lakhs).
Of canvas with rubber soles...	2,781,488	41	5,038,897	41
Of leather ... ..	426,397	21	273,640	13
Of other materials ... ..	3,553,480	25	5,607,991	34



In 1929/30 United Kingdom manufacturers supplied 78% of the imports of leather boots and shoes, their principal competitors being Czechoslovakia (mainly the Bata Works of Zlin) with 7%, Germany 4% and the United States 2%. The imports of canvas shoes with rubber soles were drawn from Canada (25%), the United States (23%), Japan (21%), Germany (13%) and the United Kingdom (8%). The shoes manufactured from other materials were obtained from Japan (81%) and the United Kingdom (8%), with lesser values from Germany, Austria, United States and Czechoslovakia. So widespread is the sale of Japanese rubber footwear that even the Indian shoemakers of Cawnpore, Agra and Delhi are finding it difficult to compete.

An exhaustive report on the Indian market for footwear was recently compiled by the H.M. Trade Commissioners in India and can be obtained by application to the Department of Overseas Trade.

**Leather.**—The imports of unmanufactured leather were :—

Description.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Hides, tanned or dressed ... ..	3	3
Skins, " " " " " "	7	5
Unwrought " " " " " "	13	8
Leather cloth (including artificial leather)	6	4

The imports of tanned or dressed hides were mainly obtained from the United Kingdom and Ceylon. Dressed or tanned skins are drawn from the United States and the United Kingdom. Unwrought leather was obtained from the United States (69%) and the United Kingdom (22%). Leather cloth is imported from the United Kingdom (64%) and the United States (26%).

From the point of view of the United Kingdom manufacturer, the more important import is that of leather manufactured goods.

Description.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Bags and trunks ... ..	1	1
Pickers ... ..	8	5
Picking bands and straps ... ..	9	7
Roller skins ... ..	7	7
Saddlery and harness ... ..	1	1
Other sorts ... ..	13	8

The United Kingdom in 1929/30 supplied 61% of the small trade in bags and trunks. Although United Kingdom makers still supply the bulk of the leather specialities for the jute and cotton mills, there is some competition from Holland (8%) in pickers and from France (9%), Holland (7%), Belgium and Germany in picking bands. Practically the whole of the roller skins and of the saddlery and harness is imported from the United Kingdom. The United States sent over Rs.3 lakhs' worth (24%) of fancy manufactured leathers included in "other sorts."

The following table shows the countries of consignment of the total imports of leather and leather goods :—

Principal countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	42	26
Germany ... ..	3	3
Ceylon ... ..	1	1
United States ... ..	17	14
Other countries ... ..	5	5
Total ... ..	68	49

### Belting for Machinery.

#### *Cotton Belting.*

Countries of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	12	8
Other countries ... ..	1	1
Total ... ..	13	9

In 1929/30 Germany shipped Rs.68,888 and the United States Rs.19,491.

*Leather Belting.*—There has been a sharp falling-off in the trade due to the industrial depression.

Countries of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	27	18
United States ... ..	9	8
Other countries ... ..	4	2
Total ... ..	40	28

Attention should again be called to the strides which are being made by two or three American makers of high grade belting who are steadily obtaining an increasing share of the trade largely on account of active support of their agents. During the past year they have also been assisted by political feeling among the mill-owners of western India. Other countries in 1929/30 included Japan (Rs.1.73 lakhs), Holland (Rs.82,631) and Germany (Rs.63,024).

#### *Belting of Other Materials (including Coir).*

Countries of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	29	20
Germany ... ..	3	3
United States ... ..	2	1
Other countries ... ..	3	2
Total ... ..	37	26

“ Other countries ” includes Japan. The total imports of all kinds of belting fell from Rs.90 lakhs to Rs.64 lakhs. When it is remembered that the pre-war average imports were only Rs.39½ lakhs and that in 1929/30 the corresponding figures were Rs.90 lakhs, a general idea of the industrial development of India since the war can be formed.

**Bobbins.**—The activity in the Indian cotton mill industry is reflected in an increase in bobbin imports :—

Countries of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	32	35½	34½
Germany ... ..	½	½	2
Other countries ... ..	3½	4	6½
<b>Total ... ..</b>	<b>36</b>	<b>40</b>	<b>43</b>

It will be observed that the United Kingdom lost ground in favour of Germany and other countries. This is probably partly due to political feeling among certain Ahmedabad millowners, who are purchasing increasing quantities of non-British millstores. The rise in the imports from Japan is noteworthy, her shipments in 1929/30 aggregating Rs.3 lakhs in value.

**Books and Printed Matter.**—The total imports were :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
66,27,876	71,81,903	60,91,405

In 1929/30 the United Kingdom supplied 84%, the United States 8% and Germany 2½%. United Kingdom publishing and scholastic supply firms are well represented and maintain their share of the trade.

**Stationery (excluding Paper).**—After a period of steady expansion over several years, the total trade receded by over 20% in 1930/31.

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	55	55	44
Germany ... ..	27	27	19
Japan ... ..	7	7	5
United States ... ..	5	5	4
Other countries ... ..	7	11	9
<b>Total ... ..</b>	<b>1,01</b>	<b>1,05</b>	<b>81</b>

United Kingdom manufacturers have been fortunate in maintaining their relative position in a year of reduced trade. Of the pencil

trade in 1929/30 Germany obtained 69%, the United Kingdom 14% and Japan 12%. In high-grade stationery, United Kingdom goods have a strong hold, but even so United States manufacturers, by dint of advertising and canvassing by travellers, have created a market for such specialities as fountain pens, propelling pencils, &c. United Kingdom firms who specialise in office stationery and requisites are meeting with success largely as a result of opening their own branches in the country or of employing regular travellers.

**Tobacco.**—The depression and political agitation of 1930 have affected the import trade in tobacco more than any other important trade with the single exception of cotton piecegoods. Some decline in imports would have been inevitable in view of the reduced purchasing power of the people, but the situation was aggravated by the boycott movement and the violent activities of picketers in many parts of the country, notably in Bengal and Upper India. The following are the principal forms in which tobacco was imported :—

Description.	1928-29 lbs.	1929-30 lbs.	1930-31 lbs.
Unmanufactured tobacco ... ..	6,760,716	4,551,848	1,608,381
Cigars ... ..	34,490	39,553	38,324
Cigarettes ... ..	4,952,083	5,282,965	3,059,692
Tobacco for pipes and cigarettes ... ..	217,694	223,253	189,648
Other sorts ... ..	29,589	32,991	39,752
Total imports ... ..	11,994,572	10,130,610	4,935,797

Not only were the imports of cigarettes curtailed, but one or two of the largest cigarette factories in India were on short time most of the year and, for a period, were entirely closed, thus causing unemployment to thousands of Indians, both in the factories and also in the tobacco-growing districts. This reduction of local manufacture is reflected in the greatly diminished imports of unmanufactured tobacco.

The provenance of the imports of cigarettes was as follows :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	1,99·5	2,11·6	1,18·0
Aden and Dependencies ... ..	0·2	0·2	0·2
Egypt ... ..	0·5	0·6	0·4
United States ... ..	0·4	0·4	1·0
Other countries ... ..	0·4	0·2	2·8
Total ... ..	2,01·0	2,13·0	1,22·4

Since April, 1930, a record of the number of imported cigarettes has been made public. Imports even during the past depressed year reached the prodigious total of 1,268,990,575, representing an average of almost 4 cigarettes per head of population. In order to obtain an idea of the importance of the Indian market one must add to this figure the number produced by the local factories. The fact that the imports of cigarettes between 1913 and 1929 increased fourfold, while local production must have advanced to a very much greater extent, is a sign that there has been a rise in the standard of life of the community.

**Rubber Manufactures — Rubber Tyres.**—*Pneumatic motor Covers.*—After a period of steady expansion extending over several years, there was a sharp drop in the imports from 487,174 covers in 1929/30 to 370,449 covers in 1930/31. The provenance of the imports was as follows :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	45	59	37
Germany ... ..	7	19	17
France ... ..	18	12	7
Italy ... ..	17	21	13
Canada ... ..	57	53	20
United States ... ..	37	59	69
Other countries ... ..	2	2	5
<b>Total imports ... ..</b>	<b>1,83</b>	<b>2,25</b>	<b>1,68</b>

The most marked feature is the reduction of the imports of tyres from United Kingdom and Canadian factories and the increased importation from the United States. The United Kingdom tyre industry was considerably affected by the boycott movement, particularly in centres such as Bombay, Delhi and the Punjab. One or two of the large United States companies have factories in the United Kingdom and in Canada in addition to their main plants in the United States and are in a position to switch their Indian orders to whichever country is favoured on political or other grounds. During the past year it is evident that the United States works were able to derive material advantage from the political agitation in India.

*Pneumatic Motor Cycle Covers.*

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
From United Kingdom ... ..	0·78	0·47
„ United States... ..	0·15	0·05
„ other countries ... ..	0·37	0·50
<b>Total ... ..</b>	<b>1·30</b>	<b>1·02</b>

The falling-off in the imports of motor cycles during the past few years has been followed by a reduction in the imports of spare tyres.

*Pneumatic Cycle Covers.*

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
From United Kingdom ... ..	14	10
„ Germany ... ..	2	1
„ France ... ..	3	4
„ other countries ... ..	1	3
Total ... ..	20	18

“ Other Countries ” includes Italy and Holland. The trade in pedal bicycle tyres is still under the influence of the prolonged boom in the imports of cycles which continued for upwards of five years.

*Solid Rubber Tyres for Motor Vehicles.*

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
From United Kingdom ... ..	2	2
„ Germany ... ..	2	1
„ United States... ..	3	2
„ other countries ... ..	1	—
Total ... ..	8	5

The steady decline in the total trade is due to the increased number of heavy vehicles now using pneumatic tyres.

*Tubes.*

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Pneumatic motor tubes ... ..	35·0	28·0
„ „ cycle tubes ... ..	0·4	0·4
„ cycle tubes ... ..	14·0	12·0

*Other Manufactures of Rubber (except Apparel and Boots and Shoes).*—The total imports aggregated :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
28,38,887	26,71,215	24,33,086

This comprehensive heading includes mechanical rubbers of all kinds, vacuum brake fittings, hose, &c., &c., and has shown a steady decline since the high-water mark of 1926/27. In 1929/30 the United Kingdom obtained 48%, Germany 21%, the United States 18% and Japan 2%. United Kingdom manufacturers, by improving and adapting their branch organisations are holding their own fairly well.

**Instruments, Apparatus, Appliances and Parts thereof.**—This comprehensive classification is made up as follows :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Electrical apparatus ... ..	3,61	3,11
Musical instruments ... ..	35	26
Optical instruments ... ..	8	6
Cinematograph films ... ..	28	31
Photographic apparatus ... ..	31	31
Scientific instruments ... ..	18	17
Surgical instruments ... ..	22	17
Wireless apparatus ... ..	7	8
Other kinds ... ..	28	31
<b>Total imports</b> ... ..	<b>5,38</b>	<b>4,78</b>

In 1929/30, the United Kingdom contributed 56% of the total, the United States 14%, Germany 14%, Holland 3% and Italy 2½%. Analysing the various sub-headings we find that :—

*Musical Instruments.*—The United Kingdom supplies 56%, Germany 21%, the United States 7%, Switzerland 4½% and France 3%. German competition is mainly in band instruments, pianos and talking machines and accessories. The United States supplies talking machines, records and accessories. The imports from Switzerland are almost entirely gramophone accessories.

*Optical Instruments.*—Germany has always maintained a strong hold on this trade and in 1929/30 contributed 48%, Japan 18%, the United Kingdom 12% and France 12%. United Kingdom imports show a tendency to decline. Arrivals from Japan are expanding.

*Cinematograph Films.*—In 1929/30, the last year for which details are available, the imports were :—

Countries of consignment.	Length in feet.	Rs. (lakhs).
United Kingdom ... ..	6,555,124	4
United States ... ..	7,195,524	13
Germany ... ..	9,959,611	5
Belgium ... ..	5,522,938	2
<b>Total imports</b> ... ..	<b>31,747,630</b>	<b>28</b>

United Kingdom films are making slow but steady progress in face of strong United States competition, backed by resident representatives and an elaborate organisation. One United Kingdom group now maintains a resident representative but, generally speaking, United Kingdom makers have largely neglected the market, which has great potentialities and in which United Kingdom films are appreciated. The management of the "New Empire Theatre," Calcutta, deserve great credit for their successful effort to maintain a constant display of the best United Kingdom productions. The popularity of these films proves that if United Kingdom makers will only cultivate the market by adequate representation on the spot, their enterprise will be rewarded. I regard India as one of the most promising outlets in the Empire for United Kingdom films.

*Photographic Apparatus.*—The trade has shown regular expansion over a series of years. In 1929/30 the United Kingdom supplied 41%, the United States 26%, Germany 18% and France 10%. The Kodak Company and one or two of the principal United Kingdom distributing firms operate branches in the country.

*Scientific Instruments.*—The United Kingdom contributes 70%, Germany 19% and the United States 6%.

*Surgical Instruments.*—The United Kingdom supplies 60%, Germany 27% and the United States 7%. German competition increases steadily in spite of the active local branch organisations of United Kingdom makers. A number of Indian surgeons are attracted by low-priced instruments.

*Wireless Apparatus.*—The total imports rose from Rs.7.3 lakhs in 1929/30 to Rs.7.6 lakhs in the year under review. The wireless beam telegraph service between India and the United Kingdom which is operated by the Indian Radio Telegraph Co., Ltd. is firmly established. There has also been an extension of point to point wireless services, wireless telephonic equipments and wireless beacon and direction finding stations. The Government of India broadcasting service continues to operate from Calcutta and Bombay, but there is a possibility that it may be closed down, at least temporarily, as a measure of economy.

The imports of wireless apparatus during the past two years were:—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	4.0	5.0
Germany ... ..	0.8	0.4
Netherlands ... ..	1.7	1.4
United States ... ..	0.6	0.5
Other countries ... ..	0.2	0.3
Total imports ... ..	7.3	7.6

*Electrical Apparatus.*—This is the most important heading in the whole group. As might be expected, the result of the economic slump together with the minor effects of a boycott of United Kingdom electrical accessories in Bombay have resulted in a decline in the total trade from Rs.361 to Rs.311 lakhs, the United Kingdom's share being reduced from Rs.215 to Rs.174 lakhs. The following statement gives the description and value of the several classes of electrical apparatus imported during the last two years:—



Description of electrical apparatus.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Electric fans and parts thereof ... ..	40	26
„ wires and cables ... ..	1,15	1,05
Telegraph and telephone instruments ... ..	5	5
Electric lamps and parts thereof ... ..	65	59
Batteries ... ..	14	13
Carbons, electric ... ..	3	2
Accumulators ... ..	26	18
Electric lighting accessories and fittings, including switches ... ..	17	9
Meters... ..	9	7
Electro-medical apparatus (including X-ray)	4	3
Switchboards (other than telegraph and telephone) ... ..	3	3
Unenumerated ... ..	60	61
<b>Total imports of all kinds ... ..</b>	<b>3,61</b>	<b>3,11</b>

Analysing these statistics we find that the imports of electric fans and parts thereof fell from Rs.39½ lakhs to Rs.25½ lakhs, the United Kingdom share being reduced from Rs.18½ lakhs to Rs.14½ lakhs, that of Italy from Rs.12 lakhs to Rs.6½ lakhs and of the United States from Rs.3½ lakhs to Rs.1½ lakhs. In electric wires and cables (rubber insulated), the imports fell from Rs.42½ lakhs to Rs.37 lakhs, the United Kingdom's share being reduced from Rs. 34½ lakhs to Rs.27½ lakhs. Imports from Germany increased from Rs.3½ lakhs to Rs.4 lakhs and from the Netherlands from Rs.1 lakh to Rs.1½ lakhs. There was a small import amounting to Rs.½ lakh from the United States. Although there was a slight increase in the imports of electric wires and cables (insulations other than rubber) from Rs.43½ lakhs to Rs.43½ lakhs, the United Kingdom share fell from Rs.40½ lakhs to Rs.38½ lakhs. The import of bare copper wire (electrolytic) other than telegraph and telephone wires decreased from Rs.29 lakhs to Rs.21½ lakhs. The United Kingdom's share fell from Rs.21½ lakhs to Rs.15 lakhs while imports from Germany increased from Rs.1½ lakhs to Rs.2½ lakhs. The Netherlands' share amounted to Rs.1½ lakhs and that of Japan to Rs.1½ lakhs. There was a small importation of Rs.63,000 from the United States. The heading for electric lamps is now divided. Flash lights (including torch lights, pocket lamps, &c.) were imported to the value of Rs.7½ lakhs as against Rs.11½ lakhs in the previous year. The majority of these came from the United States whose share was Rs.6½ lakhs as against Rs.8½ lakhs in the previous year. The United Kingdom imports increased from Rs.19,000 to Rs.35,000. Automobile lighting lamps were imported to the value of Rs.1½ lakhs. Rs.55,000 of these came from the Netherlands and Rs.54,000 from "other countries." There was a small import of Rs.4,000 from the United Kingdom. In standard lighting lamps the imports fell from Rs.26 lakhs to Rs.24½ lakhs. The United Kingdom share increased slightly from Rs.8½ lakhs to Rs.8½ lakhs. Imports from

the Netherlands declined from Rs.9 lakhs to Rs.8½ lakhs. Germany supplied Rs.1½ lakhs and Japan Rs.1¼ lakhs. In electric lamps (other sorts) the imports fell from Rs.1½ lakhs to Rs.1 lakh of which only Rs.29,000 came from the United Kingdom. The imports of telegraph and telephone instruments and apparatus fell slightly from Rs.5½ lakhs to Rs.5 lakhs and the United Kingdom's share declined from Rs.4¾ lakhs to Rs.4¼ lakhs. Accumulators to the value of Rs.18½ lakhs were imported as against Rs.25¾ lakhs in the previous year. The United Kingdom's share fell from Rs.18¼ lakhs to Rs.11½ lakhs and that of the United States from Rs.3¼ lakhs to Rs.1½ lakhs. The import of electric lighting accessories and fittings (including switches) fell from Rs.16½ lakhs to Rs.9½ lakhs, the United Kingdom's share being reduced from Rs.10¼ lakhs to Rs.5¼ lakhs, that of Germany from Rs.3 lakhs to Rs.2 lakhs and that of the United States from Rs. 1½ lakhs to Rs.½ lakh. In meters, out of a total trade of Rs.6¾ lakhs (representing a reduction of Rs.2½ lakhs), the United Kingdom supplied Rs.4½ lakhs as compared with Rs.7 lakhs in the previous year. The German imports remained steady at Rs.1½ lakhs. Electro-medical apparatus (including X-ray apparatus) was imported to the value of Rs.3 lakhs as compared with Rs.4¼ lakhs in the previous year. The United Kingdom's share fell from Rs.1 lakh to Rs.½ lakh. In switchboards (other than telegraph and telephone) the imports increased from Rs.3 lakhs to Rs.3¼ lakhs, the United Kingdom's share being increased from Rs.2½ lakhs to Rs.3 lakhs. Other sorts of electrical goods and apparatus were imported to the value of Rs.61 lakhs as compared with Rs.60 lakhs in the previous year. Imports from the United Kingdom fell from Rs.38 lakhs to Rs.29¾ lakhs while those from the United States increased from Rs.8½ lakhs to Rs.13¼ lakhs and from Germany from Rs.7¼ lakhs to Rs.8 lakhs. Imports from "other countries" increased from Rs.2 lakhs to Rs.4 lakhs.

The provenance of the total imports was as follows :—

Principal countries of consignment.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
United Kingdom ... ..	2,15	1,74
Germany ... ..	43	43
Netherlands ... ..	16	15
Italy ... ..	14	9
Japan ... ..	10	7
United States ... ..	47	44
Other countries ... ..	16	19
<b>Total ... ..</b>	<b>3,61</b>	<b>3,11</b>

**Earthenware and Porcelain.**—This classification includes:—

Articles.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Pipes of earthenware ...	†	†
Sanitary ware ...	8	6
Other kinds ...	32	20
<i>Porcelain—</i>		
Electrical ...	2	2
Other kinds ...	30	20
<b>Total imports</b> ...	<b>72</b>	<b>48</b>

\* 32,198 rupees. † 28,826 rupees.

The small imports of earthenware pipes totalling only Rs.28,826 are drawn from the United Kingdom 64% and Belgium 35%. These are merely specialities as all ordinary types are now made in India. Of the sanitary earthenware, the United Kingdom in 1929/30 supplied 91%, only negligible values being imported from the United States, Czechoslovakia and Germany. Other kinds of earthenware were, in 1929/30, divided between the United Kingdom (47%), Japan (21%), the Netherlands (7½%), Germany (7%), Belgium (5½%) and China (2%). It should be noted, however, that most of the imports from Holland and Belgium were probably German goods shipped from Rotterdam and Antwerp. The true German share is probably about 18%. The imports of low-grade earthenware from Japan are practically non-competitive so far as the United Kingdom is concerned.

The meagre imports of electrical porcelain were obtained from the United Kingdom (46%), Germany (29%) and Japan (21%). Other kinds of porcelain, including tableware, common crockery, &c., were imported from Japan (80%), the United Kingdom (7%), Germany (6%) and Czechoslovakia (2%). The imports of cheap crockery from Japan have largely killed the cheap goods trade, which a few Staffordshire makers formerly held. It is in practice impossible for them to meet Japanese prices. The principal ports of entry, in order of importance, are Bombay, Rangoon, Calcutta and Karachi.

**Glass and Glassware.**—The following table shows the types of glass and glassware imported:—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs.)
Bangles ...	85	50
Beads and false pearls ...	31	16
Bottles and phials ...	40	30
Funnels, gloves and glass parts of lamps ...	21	12
Scientific glassware ...	1	1
Sheet and plate glass ...	31	24
Tableware ...	13	9
Other glassware ...	30	22
<b>Total imports</b> ...	<b>2,52</b>	<b>1,64</b>

The severity of the economic depression and its effect in reducing the purchasing power of the people is clearly shown in the heavily reduced imports of such items as bangles and beads, which are the trinkets of the poorest classes.

The provenance of the imports was as follows :—

Countries of consignment.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
United Kingdom ... ..	22	16
Germany ... ..	34	23
Belgium ... ..	24	18
Austria ... ..	5	2
Czechoslovakia ... ..	72	36
Italy ... ..	6	3
Japan ... ..	74	55
Other countries ... ..	15	11
Total ... ..	<u>2,52</u>	<u>1,64</u>

The valuable trade in glass bangles and beads is a speciality of Czechoslovakia and Japan. Germany is a competitor in bangles and Japan, Italy and Austria in beads, but the United Kingdom is not concerned with these two items.

The imports of sodawater bottles (totalling over Rs.15 lakhs in 1929/30) were equally divided between the United Kingdom and Germany. Other kinds of bottles are drawn from Japan (55%), Germany (20%), the United Kingdom (12%) and Sweden (4%). Even the Continental glass manufacturers are not able to reduce their prices to the level of the Japanese quotations. The trade in funnels, globes and glass parts of lamps is shared by Germany (45%), the United States (21%), Japan (11%), Austria (8%), Belgium (6%) and Czechoslovakia (5%). The imports of scientific glassware, which are small and declining, are obtained from Germany (56%), the United Kingdom (25%), Japan (9%) and lesser values from Austria, Switzerland and Czechoslovakia. In plate and sheet glass, however, the United Kingdom supplies 16%, representing the finer qualities, while Belgium (60%) ships large quantities of cheap window glass. Table ware is obtained from Japan (68%), Belgium (11%), Germany (8%) and the United Kingdom (7%). Miscellaneous glassware is drawn from Japan, Germany, the United Kingdom, Belgium and France in the order stated.

#### **Building and Engineering Materials (other than Iron, Steel and Wood).**

The slowing-down of most Indian industries, coupled with reduced building activity, is responsible for a drop in the total imports from Rs.134 lakhs to Rs.110 lakhs.

The principal items in the classification are the following :—

Description...	1929-30		1930-31	
	Rs. (lakhs).		Rs. (lakhs).	
Asphalt	...	28	...	28
Bricks (other than firebricks)	...	*	...	†
Firebricks	...	5	...	2
Portland cement	...	60	...	52
Cement (other kinds)	...	4	...	3
Tiles	...	24	...	15
Other kinds	...	13	...	10
<b>Total imports</b>	...	<b>1,34</b>	...	<b>1,10</b>
	*Rs. 35,866.		†Rs. 4,469.	

Detailed figures for 1930/31 are not yet available, but in the previous year the imports of asphalt were drawn from the United States (44%), Egypt (31%), the United Kingdom (9%) and Iraq (6%). The imports from Trinidad only amounted to Rs.76,000. The trifling imports of bricks were mainly obtained from the United Kingdom. Firebricks were shipped by the United Kingdom (58%) and Italy (36%). The important trade in tiles is shared by Italy (34%), the United Kingdom (24%), Belgium (23%), Germany (6%), Japan (5%) and France (5%).

**Cement.**—The imports of cement were drawn from :—

Countries of consignment.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	81,630	47	63,168	36
Germany	5,088	2	3,083	1
Japan	18,721	7	36,790	13
Other countries	15,868	8	8,961	5
<b>Total</b>	<b>121,307</b>	<b>64</b>	<b>112,002</b>	<b>55</b>

Two-thirds of the cement imported is for the use of the Burma and Madras markets, which are sufficiently remote from the principal Indian cement works to be free from their competition. The trade is not likely to increase as the local works can produce cement fully equal to the British standard specification at a reasonable price. They have a co-operative selling and propaganda organisation.

**Hardware (excluding Cutlery and Electro-plated Ware.)**—Practically every item included under this unwieldy heading marked a sharp decline during the past year. The total imports, having fallen from Rs.523 lakhs in 1928/29 to Rs.506 lakhs in 1929/30, again receded to Rs.360 lakhs in the year under review. As the pre-war annual average amounted to Rs.317 lakhs, one realises the extent of the present slump in the case of an essentially cheap bazaar trade such as hardware :—

Article.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Agricultural implements ... ..	14	9
Buckets of tinned or galvanised iron ... ..	2	1
Builders' hardware ... ..	40	33
Domestic hardware other than enamelled ironware ... ..	13	10
Enamelled ironware ... ..	32	24
Gas-mantles ... ..	8	6
Implements and tools (other than agricultural implements and machine tools) ... ..	71	49
Lamps, metal ... ..	78	52
„ glass ... ..	*	†
Parts of lamps, other than glass ... ..	10	5
Safes and strong boxes of metal ... ..	2	1
Stoves ... ..	10	6
Other sorts ... ..	2,26	1,64
<b>Total imports</b> ... ..	<b>5,06</b>	<b>3,60</b>
	*Rs.21,729.	†Rs.24,791.

The provenance of the imports during the same years was as follows:—

Principal countries of consignment.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
United Kingdom ... ..	1,80	1,31
Sweden ... ..	17	13
Germany ... ..	1,65	1,08
Austria ... ..	12	7
Japan ... ..	26	21
United States ... ..	59	45
Other countries ... ..	47	35
<b>Total</b> ... ..	<b>5,06</b>	<b>3,60</b>

The next statement of percentage shares shows the position of the leading suppliers over a period of years:—

	1913-14 (pre-war year).	1927-28	1928-29	1929-30	1930-31
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	57	39	36	35	36
Germany ...	18	31	32	33	30
United States ...	10	12	12	12	12
Japan ...	1	5	5	5	6
Other countries ...	14	13	15	15	16
<b>Total</b> ...	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

The fact that the reduction has been distributed fairly evenly among the supplying countries and that the United Kingdom percentage has actually advanced one point, whereas the German

figure is down three points, shows that the boycott of United Kingdom goods has had little result so far as hardware is concerned and the slump in the trade may be attributed solely to economic causes. The heavy reduction in the United Kingdom share since the war and the displacement of United Kingdom hardware by German and United States products is, however, a matter for serious concern. The imports from the United Kingdom in 1929/30—before the present slump took place—were actually less in value than the average of the last five pre-war years, Rs.180 lakhs contrasted with Rs.189 lakhs. On the other hand, the imports from Germany were nearly three times the pre-war figures, Rs.165 lakhs compared with Rs.57 lakhs. The imports from the United States have more than doubled, those from Japan have increased sevenfold and those from Sweden nearly ten times. Germany is ousting us from the bazaar trades with goods frequently below the United Kingdom article in quality, but so far below it in price that dealers cannot afford to pay the premium required for the better quality and make a higher rate of profit for themselves on the Continental articles. The competition from the United States is in the higher grade tools, which were hitherto almost entirely supplied by Sheffield and Birmingham. Active marketing methods and a close consideration of the special needs of agents are largely responsible for American success. The following notes give the statistical position in each section of the trade:—

*Agricultural Implements.*—In 1929/30 the United Kingdom supplied 85% and the United States 10%. The trade however is a declining one on account of the strong competition met with from local productions. The Agricultural Implements Co. of Jamshedpur (a branch of the Tata Iron & Steel Co., Ltd.) produce picks, powrahs, kodalies, hammer heads and various special implements for use on tea gardens, and these products meet the requirements of a large section of the market. The large groups of gardens are still prepared to pay for the higher-grade United Kingdom article on account of its durability. The depression in the tea trade probably accounts for the reduced imports last year.

*Galvanised Buckets.*—The imports into India proper have almost ceased as buckets are now made locally from imported sheet and galvanised after manufacture. Burma continues to import about £12,000 worth of buckets per annum, which are mainly drawn from the United Kingdom (Germany supplied £2,500 worth in 1929/30).

*Builders' Hardware, such as Locks, Hinges, Door Bolts, &c., &c.*—The imports in 1929/30 were drawn from the United Kingdom (24%), Germany (58%), Sweden (11%) and the United States (2½%). The bazaars are full of cheap German productions, which meet the demand which is always present in India provided the price is sufficiently low. Not only do the dealers find it impossible

to pay the higher prices for quality goods, particularly in these times of economic stress, but they have a direct incentive to purchase the cheaper article as they are able to realise a better margin of profit on it. The principal markets in order of importance are Calcutta, Bombay, Madras, Karachi and Rangoon.

*Domestic Hardware.*—A similar state of affairs obtains in this trade. Arrivals from the United Kingdom remain constant at about 26%, while those from Germany now amount to 41%. The United States contributes 8%, Japan 7%, Sweden 5% and Austria 5%.

*Enamelled Ironware.*—The imports have steadily fallen during the past two years, partly on account of the competition from locally manufactured aluminium hollow-ware. In 1929/30 Japan supplied 56%, Czechoslovakia 22%, Germany 11%, the United Kingdom 5% and Austria 3%. Japan is displacing the Continent in this trade.

*Gas Mantles.*—In 1929/30 Germany shipped 61%, the United States 18% and the United Kingdom 16%. The principal markets were Bombay, Calcutta and Madras.

*Implements and Tools.*—The total imports fell from Rs.71 to Rs.49 lakhs owing to the general depression. In 1929/30 the United Kingdom supplied 53%, the United States 21%, Germany 18%, France 3% and Austria under 2%. There is very keen competition between United Kingdom and United States makers in the higher-grade types of tools. Calcutta is the principal market followed by Bombay, Madras, Rangoon and Karachi.

*Metal Lamps.*—These constitute the main item in the hardware group. Imports declined from Rs.78 to Rs.52 lakhs on account of reduced purchasing power. The trade is now divided between Germany (72%) and the United States (20%). Austria contributed 4% and the United Kingdom 1½%.

*Safes and Strong-boxes of Metal.*—During the past five years there has been a steady reduction in imports owing to the increasing competition of Indian makers such as the Godrej and Boyce Manufacturing Co. of Bombay, who produce cheap safes which meet the normal demand. Strong boxes are produced in increasing quantities at Multan. Bankers' strong rooms and the highest grades of safes are still supplied by United Kingdom makers. In 1929/30 the United Kingdom supplied 44%, Austria 17%, Germany 12% and the United States 10%.

*Stoves.*—The trade shrank from Rs.10½ to under Rs.6 lakhs. Sweden provided 71%, the United Kingdom 11%, Austria 6% and Germany 5%. Swedish wickless and other stoves are popular. The average price of the stoves imported from Sweden was slightly under Rs.4. The principal markets are Bombay and Calcutta.



*Other Sorts.*—Unenumerated items included under this omnibus heading amount to nearly half the total value. The trade was shared by the United Kingdom (47%), Germany (22%), United States (9%) and Czechoslovakia (4%). Japan, Austria, Belgium, France and Sweden contributing lesser values.

*Cutlery.*—The classification distinguishes between pruning knives—a United Kingdom trade, which has not been affected—and ordinary cutlery, the imports of which are mainly drawn from Germany and have fallen heavily during the year as a result of the depression.

	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Pruning knives ... ..	2	2	2
Other kinds ... ..	34	39	24
Total imports ... ..	36	41	26
<i>Of which from—</i>			
United Kingdom... ..	11	11	8
Germany ... ..	22	27	16
Other countries ... ..	3	3	2
Total imports ... ..	36	41	26

“Other countries” are accounted for mainly by the imports from the United States which advanced from Rs.70,000 in 1925/26 to over Rs.2 lakhs in 1929/30. It is satisfactory to note that the main brunt of the decline has fallen on Germany. This is due to the fact that the bazaar trade has suffered from the depression more acutely than any other branch of the import trade.

*Polishes.*—After a period of steady expansion, the imports fell during the year from Rs.26 to Rs.22 lakhs. The classification was made up as follows:—

Article.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Leather polish ... ..	17	17	13
Metal polish ... ..	5	5	4
Wood polish ... ..	1	1	1
Other sorts ... ..	2	3	4
Total ... ..	25	26	22

In 1929/30 the United Kingdom provided 92% of the total. The United States supplied 2% of the leather polish, 8% of the metal polish, 20% of the wood polish and 17% of other sorts. Competition from the United States tends to increase.

**Arms, Ammunition and Military Stores.**—The movements of the imports under this heading on Government of India account are as follows :—

1928-29	1929-30	1930-31
Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
66	48	44

These are, of course, exclusively drawn from the United Kingdom. There is also a very valuable import trade on private account which is made up as follows :—

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Shot gun cartridge cases (filled) ... ..	11	9
Rifle and other cartridges (filled) ... ..	4	3
Cartridge cases (empty) ... ..	*	†
Explosives ... ..	28	24
Firearms and parts thereof... ..	19	15
Gunpowder ... ..	1	1
Other sorts ... ..	2	2
<b>Total imports</b> ... ..	<b>65</b>	<b>54</b>
	*Rs.38,711.	†Rs.36,237.

Filled cartridge cases were obtained from the United Kingdom (74%), the United States (12%), Germany (6%) and Belgium (6%). The trifling imports of empty cartridge cases were supplied by the United Kingdom (60%), Germany and Belgium. Of the valuable trade in explosives 95% is held by the United Kingdom, Germany, Belgium and France supplying small quantities of blasting fuses. Of the firearms and parts, the United Kingdom sent 68%, Germany 13%, the United States 6½% and Belgium 6%. United Kingdom makers are holding their ground, but the total trade has been declining for some years, probably owing to the more rigid application of the Arms Act. The United Kingdom supplies all the gunpowder imported.

**Brushes and Brooms.**—This heading includes :—

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Paint and varnish brushes ... ..	3·0	2·3
Toilet brushes ... ..	6·0	6·0
Other brushes ... ..	5·0	3·3
Brooms ... ..	0·5	0·4
<b>Total imports</b> ... ..	<b>14·5</b>	<b>12·0</b>

Paint and varnish brushes, in 1929/30, were drawn from the United Kingdom (70%), Germany (18%), Austria and Italy. In toilet brushes, however, the position is reversed, the United Kingdom only supplying a negligible quantity (9%), while the United States supplied 47%, Germany (26%) and Japan (12%). United

States enterprise in advertising and active salesmanship finds its reward in a steadily expanding trade. Other brushes for industrial and general use are supplied by the United Kingdom (48%), Germany (21%), Japan (11%) and the United States (10%). The small trade in brooms is shared by the United Kingdom and the Straits Settlements.

**Toys and Requisites for Games and Sports.**—As might be anticipated in the case of a luxury item such as this the total trade is reduced from Rs.65 to Rs.49 lakhs but, even so, it is about 25 per cent. above the pre-war average of Rs.40 lakhs.

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
66,69,078	64,84,153.	49,06,240

In 1929/30 toys accounted for Rs.44 lakhs and were derived from Japan (42%), Germany (32%), the United Kingdom (16%) and the United States (6%). Japan is obtaining an increasing share of the business.

Playing cards, of a total value of Rs.11 lakhs, were imported from the United States (47%), Belgium (39%) and the United Kingdom (8%).

Requisites for games and sports were imported in 1929/30 to the value of nearly Rs.10 lakhs and were drawn from the United Kingdom (71%), Norway (12%), and the United States (3%). The manufacture of sports goods at Sialkot and other towns in the Punjab increases. India exported last year over Rs.3 lakh's worth.

**Tea Chests (Entire or in Sections).**—The total imports fell from Rs.80 to Rs.63½ lakhs in value as a result of reduced activity in the tea trade. The trade, however, still stands at about 50% above the pre-war average:—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	56	64	48
Russia ... ..	1	2	—
Finland ... ..	1	3	3
Esthonia ... ..	6	7	9
Other countries ... ..	3	4	3
<b>Total ... ..</b>	<b>67</b>	<b>80</b>	<b>63</b>

Over Rs.2 lakhs' worth of metal tea chests were imported in 1929/30 into the Madras Presidency. These were almost entirely drawn from the United Kingdom. Imports of wooden tea chests from Finland have fallen away during the past six years in favour of chests from Esthonia. Northern Russia supplied Rs.2 lakhs' worth in 1929/30.

**Umbrellas and Umbrella Fittings.**—The imports of complete umbrellas, including parasols and sunshades, were as follows :—

Countries of consignment.	1929-30		1930-31	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom ... ..	92,365	2.55	40,119	1
Other countries ... ..	71,979	1.70	48,929	1
<b>Total</b> ... ..	<b>164,344</b>	<b>4.25</b>	<b>89,048</b>	<b>2</b>

The trade has been declining for some years as the practice is now to assemble umbrellas in the country from imported cloth and fittings.

*Umbrella Fittings* were imported as follows :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom ... ..	10	9	5
Germany ... ..	27	20	14
Japan ... ..	11	10	9
Other countries ... ..	2	1	1
<b>Total</b> ... ..	<b>50</b>	<b>40</b>	<b>29</b>

Until 1928/29 Germany was rapidly outstripping both her rivals, but has suffered severely during the recent slump.

**Jewellery and Plate of Gold and Silver** (*excluding Imitation Jewellery, Precious Stones and Pearls unset*).

Article.	1929-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Jewellery ... ..	9	20	34
Plate of gold and silver ... ..	6	6	5
<b>Total</b> ... ..	<b>15</b>	<b>26</b>	<b>39</b>

The increased returns are probably due to the inclusion of letter packets (containing jewellery) under this head and not, as formerly, under the classification of "Postal articles not specified." Otherwise, since the imposition of the heavy import duty of 30 per cent., the trade has steadily declined. In 1929/30, of the jewellery imported, the United Kingdom contributed 83% and France 8%. Of the gold and silver plate, the United Kingdom supplied 79%, Egypt, France, China and Germany contributing small values.

**Electro-plated Ware.**—The trade shows a sharp decline :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
8,41,957	6,81,174	3,65,525

The United Kingdom, in 1929/30, supplied 93%, small values being also obtained from Germany and France.

**Carriages and Carts and Parts Thereof.**—The total imports were :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
16,91,595	14,29,043	11,11,926

In 1929/30 the United Kingdom supplied 52%, Japan 21% largely jinrickshas), Germany 15% and Belgium 6%.

**Oil Cloth and Floor Cloth.**—The imports are reduced :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
10,43,509	12,27,461	7,21,738

In 1929/30, the United Kingdom provided 46%, the United States 32% and Germany 6%, Austria, Belgium and Czechoslovakia sending lesser values.

**Furniture and Cabinetware.**—The total imports have fallen considerably :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
36,97,638	37,66,476	27,72,733

In 1929/30, the United Kingdom contributed 37%, Germany 17%, the United States 15% and Japan 10%. Germany competes principally in mouldings while the United States supply large quantities of camp furniture.

**Matches.**—India is no longer dependent on overseas sources for her supply of matches as the local industry, which has developed under the protection of the tariff, is now in a position to meet practically all her requirements. The imports have, in consequence, declined from an average of 1,532,000 gross boxes valued at Rs.17 lakhs in the first five post-war years to 396,588 gross boxes valued at Rs.4 lakhs in 1930/31. The provenance of these meagre imports was as follows :—

Principal countries of consignment.	1928-29	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Sweden ... ..	15	10	4
Japan ... ..	1	—	—
Other countries ... ..	1	1	—
Total ... ..	17	11	4

The United Kingdom has not, in recent times, exported matches to India on a commercial scale, but the London market is financially interested in the Indian developments of the Swedish group.

**Packing (Engine and Boiler) of all Kinds Excluding Asbestos.**

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
4,10,488	3,73,246	3,84,807

The market is supplied by United Kingdom manufacturers, the only competition encountered in 1929/30 being from the United States (Rs.37,000) and Belgium (Rs.14,000).

**Toilet Requisites.**—This is a comprehensive heading, including all articles for toilet use not separately classified elsewhere :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
64,60,622	72,68,019	53,80,814

The trade, being a quasi-luxury one, has suffered on account of the depression. In 1929/30 the United Kingdom contributed 38%, the United States 27%, France 9%, Japan 8% and Germany 8%. Lesser proportions were supplied by Italy, China and Czechoslovakia. The percentage share of the United Kingdom has been declining for some years in face of increasing competition from the United States, France, and Germany. United States competition in high grade, branded goods, which are largely sold on the advertised name, is most acute.

**Articles Imported by Post (not included elsewhere).**—The postal traffic, after regular expansion for many years, showed a falling-off in 1930/31. Jewellery, precious stones, gold and silver thread, cigarettes and cinematograph films, when imported by post and referred to Collectors of Customs for assessment, are now brought to account under their appropriate heads. In 1929/30, the United Kingdom supplied 63%, Italy 17%, Germany 3%, France 3% and Switzerland 2½%. China, Japan, Ceylon, Hongkong and Austria also contributed to a lesser extent.

The cash-on-delivery parcels system with the United Kingdom is a great convenience to residents in India and is being increasingly used. The following are the returns of the C.O.D. parcels received from Great Britain and Northern Ireland in 1928/29 and 1929/30 :—

Year.	Number.	Value.
1928-29 ... ..	97,546	£ 324,000
1929-30 ... ..	99,340	343,000

Of these parcels, 5,103, or 5%, were returned as undeliverable in 1929/30.

### RAW MATERIALS AND SEMI-MANUFACTURED ARTICLES.

**Coal.**—There has been a sharp fall in the imports of coal, due to diminished imports into Bombay. The figures for Karachi and Rangoon were well maintained and Madras actually increased its takings by 12,000 tons. The most recent figures are :—

Countries of consignment.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom ... ..	18,812	4	23,245	5
Union of South Africa ... ..	197,404	36	121,533	21
Portuguese East Africa ... ..	150	—	5,061	1
Australia ... ..	1,840	*	1,455	*
Other countries ... ..	6,020	1	4,394	1
Total ... ..	224,226	41	155,688	28

\* 30,000 rupees.

The following table gives the average prices per ton of Bengal, Cardiff and Natal coal in the Bombay market in 1928, 1929 and the first six months of 1930 :—

	Bengal. Per ton.			Cardiff. Per ton.			Natal. Per ton.		
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	As.	Ps.
1928 ... ..	(a) 18	3	0 (d)	(b) 21	11	2 (e)	(b) 16	8	4 (c)
1929 ... ..	(a) 18	5	0 (d)	(b) 21	9	1 (e) (f)	(b) 16	15	11 (c)
1930 (6 months) ... ..	(a) 18	4	0 (d)	—	—	—	(b) 15	6	8 (c)

(a) *ex* scales.

(b) Sterling quotations converted into rupee prices at current rates of exchange.

(c) C.I.F.

(d) Desterghur.

(e) Best Welsh, two-thirds large, one-third small, c.i.f.

(f) Average of three months quotations.

**Coke.**—The imports have been well maintained.

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
6,14,058	4,09,683	6,40,572

In 1930/31, the United Kingdom supplied 3,417 tons valued at Rs.1,37,142 and Natal 9,180 tons valued at Rs.2,62,263.

**Mineral Oils.**—The following are the most recently available statistics. In addition large supplies of refined petroleum products are received from Burma, especially kerosene, petrol and batching oils :—

*Kerosene Oil.*—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Russia ... ..	42	56
Georgia ... ..	1,07	1,21
Azerbaijan ... ..	44	65
Persia ... ..	1,58	86
Straits Settlements (including Labuan) ...	58	2
Sumatra ... ..	—	—
Borneo ... ..	21	—
United States ... ..	1,47	1,43
Other countries ... ..	11	61
Total ... ..	<u>5,88</u>	<u>5,34</u>

It will be remarked that Russia and Russian territories (Georgia and Azerbaijan) have increased their shipments from Rs.1,93 lakhs to Rs.2,42 lakhs and now supply 45% of the total imports of kerosene. The decline in the imports from Persia, the Straits Settlements and Borneo is noteworthy.

*Fuel Oils.*—The imports were :—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Persia ... ..	1,49	1,42
Straits Settlements (including Labuan) ...	23	10
Borneo ... ..	37	54
Other countries ... ..	*	5
Total ... ..	<u>2,09</u>	<u>2,11</u>

\* 20,765 rupees.

The Anglo-Persian Oil Co., Ltd. supplies the bulk of the fuel oils which are mainly imported into Bombay.

*Petrol.*—The increased imports under the Customs heading of " Petroleum, dangerous, flashing below 76 degrees F. including petrol, benzine and benzol " have been prodigious and reflect the development of motoring in India. The total trade rose from 4,654,619 gallons to 8,836,361 gallons in bulk and from Rs.38 to Rs.73 lakhs in value. In 1929/30 the imports were mainly drawn from the United States (55%) and the Straits Settlements (28%) with lesser values from Sumatra and Persia. In addition, the Burmah Oil Co., Ltd. supplies large quantities of petrol produced in Burma.

*Lubricating Oils.*—Batching oils for use in textile manufacture were imported to the extent of Rs.72 lakhs in value, of which the United States supplied 64% and Dutch Borneo 35%. Other lubricating oils were derived as follows :—



Country of consignment.	1928-29	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom ... ..	13	24	20
United States ... ..	1,12	1,03	1,04
Other countries ... ..	10	3	6
Total ... ..	1,35	1,30	1,30

United Kingdom lubricants alone suffered a reduction, probably owing to the fact that, in times of depression, many Indian industrialists are not prepared to pay for the highest quality and attempt to economise by substitution. The gradual development of aviation should create a market for the finest grade United Kingdom lubricants.

**Salt.**—Valuable markets for imported salt exist in Bengal and Burma and the import trade has recently been worth £1,000,000 per annum. The Indian Tariff Board, however, has recently been considering the desirability of encouraging and protecting the production of salt in India. Readers interested should refer to page 107 for a record of the Board's findings. The latest statistics of imports are as follows:—

Principal countries of consignment.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	(Rs. lakhs).
United Kingdom ... ..	83,094	19	41,597	9
Germany ... ..	62,904	14	97,014	20
Spain ... ..	69,368	14	66,916	13
Aden and Dependencies ... ..	231,710	44	188,456	28
Egypt ... ..	104,879	21	128,681	22
Italian East Africa ... ..	68,465	13	154,139	22
Other countries ... ..	23,426	5	26,840	3
Total ... ..	643,846	1,30	703,643	1,17

These figures disclose a considerable reduction in the price per ton.

**Sugar.**—Sugar last year ranked third in the list of India's imports, being exceeded in value only by cotton piecegoods and machinery. As might be expected, the total imports of all kinds of sugar fell from just over Rs.16 crores in 1928/29 to Rs.15½ crores in 1929/30 and to under Rs.11 crores in the year under review. The main heading of "16 Dutch Standard and above" has been sub-divided from April, 1930, into (a) "23 Dutch Standard and above" and (b) "Below 23 Dutch Standard but not below 16 D.S." The year's imports were obtained as follows:—

<i>Sugar—23 Dutch Standard and above.</i>		
Countries of consignment.	Tons.	Rs. (lakhs).
United Kingdom ... ..	1,235	2
Belgium ... ..	331	1
Ceylon ... ..	5,722	9
Straits Settlements (including Labuan) ... ..	369	1
Java ... ..	715,307	8,44
China ... ..	4,657	8
Other countries ... ..	241	1
<b>Total ... ..</b>	<b>727,862</b>	<b>8,66</b>

<i>Sugar—below 23 Dutch Standard and not below 16 D.S.</i>		
Countries of consignment.	Tons.	Rs. (lakhs).
United Kingdom ... ..	18	*
Java ... ..	87,000	92
China ... ..	314	1
Other countries ... ..	91	†
<b>Total ... ..</b>	<b>87,423</b>	<b>93</b>

\*Rs.9,067.

†Rs.27,172.

**Beet Sugar.**—India's offtake of beet sugar is spasmodic, depending entirely upon the relative price of cane sugar. The past year has witnessed a heavy fall in the imports of beet sugar, the figures being as follows:—

Principal countries of consignment.	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
United Kingdom ... ..	78	7
Poland ... ..	3	2
Germany ... ..	24	15
Netherlands ... ..	4	1
Belgium ... ..	2	—
France ... ..	20	—
Austria ... ..	2	—
Hungary ... ..	59	16
Czechoslovakia ... ..	18	1
Serb-Croat-Slovene State ... ..	7	—
Other countries ... ..	7	45
<b>Total ... ..</b>	<b>2,24</b>	<b>87</b>

The following table gives the other types of imported sugar:—

	1929-30	1930-31
	Rs. (lakhs).	Rs. (lakhs).
Sugar, 15 Dutch Standard and below ... ..	3	7
Molasses ... ..	26	43

The trade in molasses is a valuable one and is entirely conducted with Java. The business is being actively developed by the Pure Cane Molasses Co. of India, Ltd. with headquarters at Calcutta, where the company has facilities for bulk storage.

APPENDIX I.

TOTAL OVERSEAS TRADE OF INDIA WITH PRINCIPAL COUNTRIES, SHOWING NET BALANCES.

	1913-14			1929-30			1930-31		
	Exports.	Imports.	Net imports (-) or exports(+)	Exports.	Imports.	Net imports (-) or exports(+)	Exports.	Imports.	Net imports (-) or exports(+)
	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)
United Kingdom ...	58	117	-59	69	103	-34	54	61	-7
Other British Possessions ...	36	11	+25	45	21	+24	36	15	+21
<b>TOTAL BRITISH EMPIRE</b>	<b>94</b>	<b>128</b>	<b>-34</b>	<b>114</b>	<b>124</b>	<b>-10.</b>	<b>90</b>	<b>76</b>	<b>+14</b>
EUROPE ...	85	30	+55	84	49	+35	53	36	+17
UNITED STATES ...	22	5	+17	37	18	+19	21	15	+6
JAPAN ...	23	5	+18	33	24	+9	24	15	+9
OTHER FOREIGN COUNTRIES ...	25	15	+10	50	26	+24	38	23	+15
<b>TOTAL FOREIGN COUNTRIES ...</b>	<b>155</b>	<b>55</b>	<b>+100</b>	<b>204</b>	<b>117</b>	<b>+87</b>	<b>136</b>	<b>89</b>	<b>+47</b>
<b>GRAND TOTAL ...</b>	<b>249</b>	<b>183</b>	<b>+66</b>	<b>318</b>	<b>241</b>	<b>+77</b>	<b>226</b>	<b>165</b>	<b>+61</b>

APPENDIX II.

SHOWING POSITION OF THE PRINCIPAL SUPPLIERS IN CERTAIN CHIEF ITEMS OF IMPORTS.

	Iron and steel.			Machinery.			Hardware.			Motor cars, motor cycles, etc.		
	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom ... ..	69.9	59.2	52.3	89.8	75.1	74.7	57.2	35.6	36.4	71.3	20.8	23.7
United States ... ..	2.6	3.1	4.6	3.3	9.6	11.4	9.7	11.7	12.5	15.1	59.1	48.3
Germany ... ..	14.5	5.7	6.9	5.6	9.5	8.2	18.2	32.6	29.9	—	1.1	1.5
Belgium ... ..	11.5	23.5	24.9	—	1.0	—	—	0.8	0.9	4.5	0.3	0.4
Japan ... ..	—	—	—	—	—	—	1.5	5.1	5.8	—	—	0.2
France ... ..	—	5.0	4.1	—	—	—	—	1.0	0.6	4.5	1.7	1.8
Netherlands ... ..	—	—	—	—	—	—	—	—	—	—	—	—
Italy ... ..	—	—	—	—	—	—	—	—	—	—	3.8	4.5
Canada ... ..	—	—	—	—	—	—	—	—	—	—	12.7	19.0
Percentage of total trade represented by countries shown ... ..	98.5	96.5	92.8	98.7	95.2	94.3	86.6	86.8	86.1	95.4	99.5	99.4
TOTAL VALUE OF TRADE RS. (lakhs) ...	16,01	17,21	10,89	7,76	18,22	14,35	3,95	5,07	3,60	1,53	7,52	4,99

APPENDIX II—continued.

	Instruments.			Cotton manufactures.			Liquors.			Paper.		
	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom ... ..	75.3	56.4	53.4	90.1	63.5	58.0	62.9	58.5	59.6	56.0	32.7	31.2
United States ... ..	8.0	14.7	16.4	0.4	1.5	1.0	2.7	5.0	5.0	—	2.2	4.5
Germany ... ..	8.2	14.3	15.7	2.1	0.4	0.4	10.7	9.9	9.3	17.0	12.0	9.7
Belgium ... ..	—	1.3	2.1	—	0.2	0.2	—	—	—	—	—	—
Japan ... ..	0.6	2.2	1.9	1.8	26.5	30.3	—	—	—	—	—	—
France ... ..	—	1.6	1.5	—	—	0.2	18.8	17.0	15.4	—	1.2	0.5
Netherlands ... ..	—	3.4	3.5	1.6	2.0	2.5	—	2.5	2.9	2.5	7.0	7.0
Italy ... ..	2.2	2.8	2.0	1.5	1.9	1.5	—	—	—	—	—	—
Switzerland ... ..	—	—	—	—	1.0	1.0	—	—	—	—	—	—
China ... ..	—	—	—	0.1	2.4	4.3	—	—	—	—	—	—
Norway ... ..	—	—	—	—	—	—	—	—	—	5.0	14.2	15.0
Sweden ... ..	—	—	—	—	—	—	—	—	—	3.1	10.3	10.4
Austria ... ..	—	—	—	—	—	—	—	—	—	8.3	9.0	10.3
Percentage of total trade represented by countries shown ... ..	94.3	96.7	96.5	97.6	99.4	99.4	95.1	92.9	92.2	91.9	88.6	88.6
TOTAL VALUE OF TRADE Rs. (lakhs). ...	1,82	5,38	4,77	66,30	59,49	25,26	2,24	3,77	3,32	1,59	3,72	2,87

## APPENDIX III.

## VALUE OF TRADE WITH PRINCIPAL COUNTRIES, DISTINGUISHING PRINCIPAL ARTICLES.

TABLE A.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
<b>UNITED KINGDOM.</b>				
<i>Imports therefrom—</i>				
Animals, living ... ..	5,02	8,92	8,76	7,45
Apparel ... ..	59,29	69,86	59,54	33,57
Arms, ammunition, etc. ...	30,60	51,54	53,39	44,79
Artificial silk yarn ... ..	—	30,52	19,52	11,98
Asbestos ... ..	—	24,84	21,68	17,81
Belting for machinery ...	36,26	65,52	67,67	46,34
Bobbins ... ..	—	32,22	35,48	34,49
Books and printed matter	41,05	55,88	60,96	51,51
Boots and shoes ... ..	51,33	26,90	22,28	11,15
Building materials ... ..	59,89	69,82	65,37	48,26
Carriages and carts ... ..	19,11	7,98	7,43	5,73
Chemicals ... ..	69,55	1,47,29	1,59,33	1,41,08
China clay ... ..	—	9,65	15,10	7,06
Coal and coke ... ..	41,33	10,24	5,16	6,36
Cordage and rope ... ..	4,39	4,21	5,10	4,96
Cotton—				
Raw ... ..	58,67	11,77	4,64	27,42
Twist and yarn... ..	3,35,18	3,56,10	2,95,91	1,26,57
Piecegoods—				
Grey ... ..	20,73,55	13,78,09	11,75,99	2,81,28
White ... ..	10,87,38	14,23,36	12,02,58	5,22,94
Coloured ... ..	11,29,72	11,99,30	9,50,44	4,47,56
Other manufactures ... ..	1,40,25	1,51,88	1,55,03	85,97
Cutlery ... ..	10,53	10,90	11,13	8,30
Cycles and parts ... ..	29,40	1,07,28	96,62	47,62
Drugs and medicines ... ..	54,03	88,98	95,29	64,37
Dyeing and tanning sub- stances ... ..	6,90	16,87	22,08	16,68
Earthenware and porcelain	30,50	28,27	25,68	18,00
Flax manufactures ... ..	28,83	34,29	32,35	20,67
Furniture ... ..	10,84	13,11	14,00	11,75
Glass and glassware ... ..	22,26	20,73	22,15	16,32
Haberdashery and millinery	61,21	27,32	26,26	18,46
Hardware ... ..	1,88,61	1,88,73	1,80,42	1,31,49
Instruments, apparatus, etc. ... ..	1,04,88	2,88,32	3,03,30	2,55,04
Ivory ... ..	11,33	8,79	5,94	5,78
Jewellery, etc. ... ..	14,51	11,15	21,60	36,77
Jute manufactures ... ..	10,09	6,04	6,73	3,24
Leather, including hides, tanned, etc. ... ..	38,59	39,94	42,00	25,49
Liquors—				
Ale, beer and porter ... ..	45,64	61,30	68,65	63,69
Spirits ... ..	69,47	1,36,04	1,40,61	1,25,13
Wines ... ..	13,62	10,72	10,43	8,47
Machinery and millwork ...	4,97,69	14,09,41	13,68,28	10,72,18
Manures ... ..	1,68	23,63	31,45	35,05

TABLE A—continued.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
Metals—				
Aluminium ... ..	5,38	35,71	39,79	21,32
Brass ... ..	6,13	84,09	56,03	28,17
Copper ... ..	1,67,45	49,25	29,96	29,55
Iron ... ..	28,88	7,06	7,93	6,28
Iron or steel ... ..	6,96,13	11,90,05	9,28,78	5,13,34
Lead ... ..	13,99	3,88	4,20	3,42
Steel ... ..	42,02	1,07,94	81,59	50,23
Zinc ... ..	14,85	15,22	11,81	5,25
Others ... ..	27,43	22,65	26,69	20,91
Motor cars and motor cycles, etc. ... ..	74,50	1,62,99	1,59,02	93,87
Oils, mineral ... ..	22,31	19,99	32,13	25,57
„ vegetable, animal, etc. ... ..	17,76	14,76	14,44	11,87
Packing, engine and boiler ... ..	4,98	3,61	3,02	3,36
Paints and painters' materials ... ..	56,00	1,04,02	99,98	74,28
Paper and pasteboard ... ..	73,44	1,23,24	1,21,87	89,36
Piecegoods of cotton and artificial silk ... ..	—	84,12	41,55	12,74
Pitch and tar ... ..	8,72	2,23	2,42	1,49
Polishes ... ..	9,48	22,62	24,22	19,58
Precious stones ... ..	14	9,84	10,17	1,94
Printing materials ... ..	14,70	26,90	25,71	16,99
Provisions ... ..	1,34,15	2,25,46	2,35,11	1,94,36
Railway plant, etc. ... ..	5,54,48	—	—	—
Rubber manufactures, including tyres, etc. ... ..	16,45	89,79	1,11,45	73,60
Salt ... ..	23,44	19,53	19,49	8,86
Ships, parts of ... ..	18,00	19,00	10,04	12,39
Silk manufactures, including yarn ... ..	19,07	11,08	8,17	6,64
Soap ... ..	56,52	1,38,85	1,45,81	97,83
Stationery ... ..	41,44	55,10	55,53	43,76
Sugar ... ..	25,37	10,10	1,03,20	10,04
Tallow and stearine ... ..	10,43	4,41	6,34	4,45
Tea-chests ... ..	41,32	55,93	63,96	47,77
Tobacco ... ..	51,83	2,13,75	2,26,40	1,29,98
Toilet requisites ... ..	10,35	25,89	27,90	19,37
Toys and requisites for games ... ..	16,75	16,50	15,30	12,20
Umbrellas ... ..	24,71	15,62	11,23	5,73
Woollen manufactures, including yarn ... ..	1,85,24	1,65,22	1,28,12	67,32
Other articles ... ..	1,50,99	5,00,32	5,04,61	4,18,95
Total ... ..	91,58,01	1,13,24,43	1,03,10,30	61,28,65

TABLE B.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's	omitted)	
<b>ITALY.</b>				
<i>Imports therefrom—</i>				
Apparel ... ..	6,98	13,11	11,86	5,72
Art, works of ... ..	45	1,51	77	1,51
Building materials ... ..	2,57	10,14	13,67	7,26
Buttons ... ..	—	9,54	6,03	3,05
Chemicals ... ..	4,72	14,50	21,24	19,23
Dyeing and tanning sub- stances ... ..	1,49	15,80	7,24	8,34
Fruits and vegetables ... ..	8,48	27,11	38,26	28,33
Glassware ... ..	4,26	5,28	6,12	2,73
Instruments ... ..	1,70	13,83	15,14	9,66
Liquor ... ..	78	3,45	3,02	2,81
Machinery ... ..	1,44	16,64	15,39	15,24
<b>Metals—</b>				
Aluminium ... ..	9	57	1,52	24
Brass ... ..	1,09	26	35	39
German silver ... ..	—	5,60	4,28	3,85
Quicksilver ... ..	—	5,42	4,40	5,11
Others ... ..	67	4,40	7,03	3,76
Motor cars, etc. ... ..	66	27,51	28,23	19,61
Paper and pasteboard ... ..	79	5,82	5,24	3,12
Rubber manufactures ... ..	13	20,41	23,62	16,47
Stone and marble... ..	2,48	2,81	3,64	3,10
Sugar ... ..	23	—	4	—
<b>Textiles—</b>				
Artificial silk yarn ... ..	—	61,04	45,81	50,60
Cotton, raw ... ..	11	10	16,61	6,71
„ twist and yarn ... ..	4,98	10,25	16,57	36,77
„ manufactures ... ..	45,22	1,31,49	95,65	36,76
Haberdashery and mil- linery ... ..	4,32	12,04	9,42	9,18
Silk manufactures ... ..	19,83	43,29	30,54	16,64
Piecegoods of cotton and artificial silk ... ..	—	92,64	51,18	19,64
Wool manufactures ... ..	4,07	90,86	83,01	62,23
Other articles ... ..	27,30	90,38	1,07,49	1,48,46
<b>Total ... ..</b>	<b>1,44,84</b>	<b>7,35,80</b>	<b>6,73,37</b>	<b>4,50,52</b>



TABLE C.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
<b>BELGIUM.</b>				
<i>Imports therefrom—</i>				
Artificial silk ... ..	—	10,67	5,48	2,57
Arms, etc. ... ..	26	2,42	2,55	1,66
Building materials ... ..	4,04	5,81	7,46	4,84
Cotton manufactures ... ..	42,12	23,54	14,04	6,15
Dyeing and tanning substances ... ..	10,82	2,13	1,12	75
Earthenware and porcelain ... ..	3,45	2,19	2,24	1,26
Glass and glassware ... ..	16,92	24,82	23,68	17,53
Hardware ... ..	5,58	5,22	4,00	3,21
Liquors ... ..	1,50	1,64	1,65	2,06
Machinery and millwork ... ..	1,76	16,91	17,68	14,39
Manures ... ..	75	9,11	8,68	3,44
Metals—				
Brass ... ..	37	1,09	78	1,45
Copper ... ..	3,54	10,33	4,96	4,59
Iron ... ..	15,95	2,89	2,49	1,98
Iron or steel ... ..	45,46	2,98,21	2,87,65	2,18,14
Steel ... ..	63,54	1,05,95	1,14,02	51,01
Motor cars, etc. ... ..	4,15	1,78	2,27	1,21
Paints and painters' materials ... ..	2,08	4,51	5,70	4,85
Paper and pasteboard ... ..	5,00	8,28	7,26	5,42
Precious stones ... ..	1	72,49	65,90	39,50
Provisions ... ..	1,41	21,21	7,62	12,56
Railway plant, etc. ... ..	4,28	—	—	—
Sugar ... ..	29	97	3,57	76
Woollen manufactures ... ..	2,11	8,30	6,68	4,33
Other articles ... ..	40,61	79,50	81,20	63,35
<b>Total ... ..</b>	<b>2,76,00</b>	<b>7,19,97</b>	<b>6,78,68</b>	<b>4,67,01</b>

TABLE D.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
<b>GERMANY.</b>				
<i>Imports therefrom—</i>				
Apparel ... ..	14,87	22,01	17,12	12,53
Bobbins ... ..	—	39	50	1,96
Building materials ... ..	6,72	3,58	4,09	2,55
Buttons ... ..	—	7,16	5,72	3,23
Carriages ... ..	2,81	2,07	2,23	1,21
Chemicals ... ..	10,62	41,49	43,77	47,88
Clocks and watches ... ..	1,36	7,09	6,63	5,30
Cutlery ... ..	7,95	22,24	26,80	15,72
Cycles ... ..	1,75	16,91	13,72	11,28
Drugs and medicines ... ..	6,19	36,45	40,61	48,13
Dyeing substances ... ..	87,40	1,55,85	1,28,52	1,61,06
Glassware ... ..	23,69	40,73	34,18	23,50
Hardware ... ..	57,24	1,68,62	1,65,31	1,07,72
Instruments ... ..	13,57	65,54	77,15	75,24
Liquors ... ..	19,41	35,76	37,24	30,73
Machinery ... ..	30,27	1,13,98	1,73,79	1,18,06
Manures ... ..	2,20	10,13	17,91	7,56
<b>Metals—</b>				
Aluminium ... ..	12,16	5,07	13,86	13,21
Brass ... ..	1,56	1,19,67	1,25,44	98,76
Copper ... ..	93,41	48,58	30,71	28,60
Iron ... ..	2,86	92	16	1,09
Iron or steel ... ..	86,97	80,76	79,16	69,95
Steel ... ..	65,19	25,74	19,39	4,34
Zinc ... ..	3,24	5,05	16,16	3,77
Motor cars, etc. ... ..	5,64	6,23	8,52	12,36
Oils ... ..	19,57	41,90	27,48	12,45
Paints and painters' materials ... ..	5,58	10,05	12,87	11,76
Paper and pasteboard ... ..	21,82	43,70	44,51	27,88
Paper-making materials ... ..	1,61	1,95	2,84	2,77
Printing materials ... ..	1,02	9,10	10,33	5,62
Provisions ... ..	5,50	4,48	7,24	9,66
Railway plant ... ..	12,19	—	—	—
Rubber manufactures ... ..	3,82	16,48	33,90	29,47
Salt... ..	9,46	16,73	14,30	20,25
Stationery ... ..	5,04	26,89	26,78	19,49
Sugar ... ..	3,84	54	27,56	15,04
<b>Textiles—</b>				
Artificial silk ... ..	—	39,10	16,84	9,21
Cotton manufactures ... ..	83,71	29,48	22,71	11,01
Haberdashery ... ..	22,10	39,85	23,22	15,55
Silk manufactures ... ..	16,81	17,34	13,72	6,66
Wool manufactures ... ..	90,62	85,11	62,41	31,78
Toys ... ..	11,10	16,72	15,28	8,29
Umbrellas ... ..	7,66	26,80	19,77	14,36
Other articles ... ..	57,03	1,16,12	1,08,76	81,63
<b>Total ... ..</b>	<b>9,35,56</b>	<b>15,84,36</b>	<b>15,79,21</b>	<b>12,38,42</b>

TABLE E.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
JAPAN.				
<i>Imports therefrom—</i>				
Ale, beer and porter ...	3	3,84	4,58	4,60
Apparel ... ..	9,17	20,02	18,73	18,50
Artificial silk ... ..	—	33,86	1,45,47	1,54,11
Bobbins ... ..	—	2,24	2,96	4,92
Boots and shoes ... ..	16	3,05	29,42	67,16
Brass, bronze, etc. ... ..	7	35,50	32,87	24,70
Brushes and brooms ... ..	48	1,17	1,27	1,10
Buttons of all sorts ... ..	—	9,09	8,29	5,36
Camphor ... ..	11,48	18,35	19,16	9,33
Carriages ... ..	11	4,78	3,11	3,30
Cement ... ..	1	5,65	6,86	12,85
Chemicals ... ..	93	3,58	5,22	4,37
Coal and coke ... ..	7,02	13	20	19
Copper ... ..	27,99	3	4,11	53
Cotton, raw ... ..	9	1	60	5,28
"  hosiery ... ..	65,23	1,25,19	1,23,35	76,51
"  piecegoods ... ..	6,10	8,89,29	12,69,56	5,92,90
"  yarn ... ..	6,16	1,23,72	1,63,78	83,56
"  other manufactures	2,12	16,94	17,48	12,79
Drugs and medicines (other than camphor) ... ..	1,72	5,91	7,76	6,71
Earthenware and porcelain	4,23	25,35	31,47	21,31
Furniture and cabinetware	71	3,34	3,98	1,90
Glass and glassware—				
Bangles ... ..	5	22,48	24,95	19,84
Beads and false pearls	7,61	10,26	9,33	5,06
Bottles and phials ... ..	1,00	11,83	13,73	11,92
Funnels, globes, etc. ... ..	58	2,76	2,36	1,35
Tableware ... ..	1,41	6,81	9,04	5,74
Others ... ..	3,35	15,44	14,77	10,81
Haberdashery & millinery	10,88	19,66	20,24	13,36
Hardware ... ..	3,59	28,60	26,05	20,91
Instruments ... ..	85	7,40	12,07	9,65
Iron or steel ... ..	—	1,92	3,73	5,14
Machinery and millwork...	63	4,52	6,30	4,85
Matches ... ..	28,40	81	50	16
Paints & painters' materials	—	2,90	3,35	4,30
Paper and pasteboard ... ..	55	7,50	10,41	11,08
Provisions & oilmen's stores	1,57	2,50	3,37	2,09
Rubber manufactures ... ..	—	1,12	81	2,19
Silk, raw ... ..	1,15	7,13	1,60	65
"  manufactures ... ..	1,31,45	1,67,24	1,60,24	89,01
Spices, ginger ... ..	3,40	1,87	1,45	61
Stationery (excluding paper)	2,17	6,71	6,66	4,74
Tea-chests ... ..	87	68	64	76
Toilet requisites ... ..	1,31	4,41	5,94	3,33
Toys and requisites for games ... ..	3,16	16,48	18,84	13,10
Umbrellas and umbrella fittings ... ..	4,91	11,15	10,37	8,69
Wood, timber ... ..	32	8,08	20,74	24,06
"  manufactures ... ..	71	7,54	9,67	6,34
Woollen manufactures ... ..	8	2,88	5,14	3,19
Other articles ... ..	10,54	55,95	56,02	56,19
<b>Total ... ..</b>	<b>3,64,35</b>	<b>17,67,67</b>	<b>23,58,55</b>	<b>14,51,10</b>

TABLE F.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's	omitted)	
UNITED STATES.				
<i>Imports therefrom—</i>				
Aluminium ... ..	4,26	40,90	52,99	42,11
Apparel ... ..	33	13,13	15,79	10,85
Arms ... ..	80	3,15	3,48	2,89
Belting for machinery ... ..	1,11	9,29	12,12	9,41
Boots and shoes ... ..	54	15,65	10,41	1,53
Building materials ... ..	88	10,14	17,26	14,23
Carriages ... ..	72	52	31	26
Chemicals ... ..	22	11,68	11,79	13,48
Clocks and watches ... ..	3,82	5,43	4,19	2,97
Copper ... ..	—	11,28	4,11	17,90
Cotton, raw ... ..	27,72	1,37,96	19,59	83,15
"    piecegoods ... ..	26,44	79,25	87,78	26,58
Drugs and medicines ... ..	4,18	18,97	23,46	22,22
Dyeing substances ... ..	—	13,88	16,13	13,77
Furniture ... ..	1,44	6,01	5,82	2,83
Glassware ... ..	1,17	4,61	5,44	3,53
Hardware ... ..	24,72	61,16	59,23	44,93
Instruments ... ..	5,86	73,00	79,35	78,71
Iron and steel ... ..	48,56	61,42	52,48	49,73
Leather ... ..	—	14,85	17,64	14,25
Machinery ... ..	24,56	2,06,79	1,75,22	1,64,15
Manures ... ..	—	7,66	14,50	5,72
Motor cars, etc. ... ..	8,49	4,18,61	4,44,91	2,41,16
Oils, mineral ... ..	2,19,66	2,62,39	3,12,07	3,67,94
Paper and pasteboard ... ..	1,21	8,33	8,02	12,98
Provisions ... ..	3,80	43,97	48,05	40,42
Railway plant ... ..	54	—	—	—
Rubber ... ..	16	49,38	72,71	85,85
Spirit ... ..	5,34	16,99	18,71	16,46
Stationery ... ..	2,05	5,44	5,04	4,49
Sugar ... ..	18	64	62	48
Tobacco ... ..	5,90	57,27	39,11	14,29
Toilet requisites ... ..	2,22	17,27	19,75	17,48
Wood and timber... ..	6,56	6,80	9,37	7,26
Other articles ... ..	15,59	98,20	99,70	78,81
Total ... ..	4,49,03	17,92,02	17,66,15	15,12,39

TABLE G.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
FRANCE.				
<i>Imports therefrom—</i>				
Apparel ... ..	40,03	33,27	35,78	22,00
Artificial silk ... ..	—	9,26	14,12	2,37
Chemicals ... ..	47	3,58	3,80	3,10
Clocks and watches ... ..	4,65	1,43	1,06	84
Cotton manufactures ... ..	2,88	11,18	9,65	5,33
Drugs and medicines ... ..	2,65	9,79	13,18	11,21
Dyeing and tanning substances ... ..	6,02	13,98	6,11	4,08
Fruits and vegetables ... ..	8,96	9,71	2,74	1,49
Hardware ... ..	2,18	4,85	5,16	2,29
Haberdashery ... ..	8,25	4,79	3,96	3,12
Instruments ... ..	4,20	7,88	8,42	7,30
Liquors ... ..	38,04	63,55	63,99	50,94
Machinery ... ..	31	4,68	4,94	6,26
Metals—				
Brass ... ..	16	5,51	3,27	2,45
Copper ... ..	12,93	21,09	18,03	19,56
Iron or steel ... ..	2,84	37,24	27,96	22,75
Steel ... ..	20	22,30	12,23	6,79
Motor cars, etc. ... ..	5,94	10,35	12,87	9,03
Oils ... ..	82	1,83	2,22	1,49
Provisions ... ..	3,07	8,46	7,72	8,07
Rubber manufactures ... ..	1,78	32,94	21,74	16,92
Seeds ... ..	51	5,17	6,07	8
Sugar ... ..	43	1,37	21,31	—
Silk manufactures ... ..	27,18	13,45	10,21	3,48
Wool manufactures ... ..	12,64	67,49	66,82	27,51
Toilet requisites ... ..	68	5,92	6,67	5,54
Umbrellas ... ..	81	66	96	66
Other articles ... ..	31,87	65,83	66,24	44,24
<b>Total ... ..</b>	<b>2,20,50</b>	<b>4,77,56</b>	<b>4,57,23</b>	<b>2,88,90</b>

## APPENDIX IV.

LIST OF THE REPORTS OF THE INDIAN TARIFF BOARD MENTIONED IN  
CHAPTER IV.

- Copies of the undermentioned reports are purchasable from the Office of the High Commissioner for India, India House, Aldwych, London, W.C.2.

✓ Galvanised Sheets—					
Report	...	...	...	...	Price 8 <i>d.</i>
Evidence	...	...	...	...	" 2 <i>s.</i>
Salt Industry—					
Report, 1930	...	...	...	...	Price 1 <i>s.</i> 9 <i>d.</i>
Written Evidence—Vol. I.	...	...	...	...	" 5 <i>s.</i> 6 <i>d.</i>
Oral " Vol. II.	...	...	...	...	" 5 <i>s.</i> 3 <i>d.</i>
✓ Sugar Industry—					
Report, 1931	...	...	...	...	Price 1 <i>s.</i> 9 <i>d.</i>
Certain Railway Materials—					
Report, 1930	...	...	...	...	Price 6 <i>d.</i>
Evidence, 1931	...	...	...	...	" 5 <i>s.</i> 3 <i>d.</i>
Steel Rails—					
Report and Evidence, 1931	...	...	...	...	Price 9 <i>d.</i>
✓ Gold and Silver Thread and Allied Industries—					
Report, 1930	...	...	...	...	Price 8 <i>d.</i>
Evidence, 1931	...	...	...	...	" 5 <i>s.</i>
Pig Iron—					
Report (in evidence), 1930	...	...	...	...	Price 2 <i>s.</i> 3 <i>d.</i>
✓ Heavy Chemical Industry—					
Report, 1929	...	...	...	...	Price 2 <i>s.</i>
Evidence, Vol. I.	...	...	...	...	" 5 <i>s.</i> 6 <i>d.</i>
" Vol. II.	...	...	...	...	" 8 <i>s.</i> 6 <i>d.</i>