

Report on the Import Tariff
on Cotton Piece-goods and on
External Competition in the
Cotton Piece-goods Trade

BY

G. S. HARDY, I.C.S.
Collector of Customs, Calcutta



CALCUTTA: GOVERNMENT OF INDIA
CENTRAL PUBLICATION BRANCH
1929

Government of India Publications are obtainable from the Government of
**India Central Publication Branch, 3, Government Place, West,
 Calcutta, and from the following Agents :—**

EUROPE.

OFFICE OF THE HIGH COMMISSIONER FOR INDIA, 42, GROSVENOR GARDENS, LONDON, S. W. 1,
 And at all Booksellers.

INDIA AND CEYLON : Provincial Book Depôts.

MADRAS :— Superintendent, Government Press, Mount Road, Madras.
BOMBAY :— Superintendent, Government Book Depôt, Town Hall, Bombay.
SIND :— Library attached to the Office of the Commissioner in Sind, Karachi.
BENGAL :— Bengal Secretariat Book Depôt, Writers' Buildings, Room No. 1, Ground Floor, Calcutta.
UNITED PROVINCES OF AGRA AND OUDH :— Superintendent of Government Press, United Provinces of Agra and Oudh, Allahabad.
PUNJAB :— Superintendent, Government Printing, Punjab, Lahore.
BURMA :— Superintendent, Government Printing, Burma, Rangoon.
CENTRAL PROVINCES AND BEHAR :— Superintendent, Government Printing, Central Provinces, Nagpur.
ASSAM :— Superintendent, Assam Secretariat Press, Shillong.
BIHAR AND ORISSA :— Superintendent, Government Printing, Bihar and Orissa, P. O. Gulzarbagh, Patna.
COORG :— Office of the Chief Commissioner of Coorg, Bangalore.
NORTH-WEST FRONTIER PROVINCE :— Manager, Government Printing and Stationery, Peshawar.

Thacker Spink & Co., Calcutta and Simla.
 W. Newinan & Co., Ltd., Calcutta.
 E. Lambray & Co., Calcutta.
 S. K. Laluri & Co., Calcutta.
 The Indian School Supply Depôt, 309, Bow Bazar Street, Calcutta.
 Butterworth & Co. (India), Ltd., Calcutta.
 Rai M. C. Sarcar Bahadur & Sons, 90-2A, Harrison Road, Calcutta.
 Standard Literature Company, Limited, Calcutta.
 Association Press, Calcutta.
 Chukervertty, Chatterjee & Co., Ltd., 13, College Square, Calcutta.
 The Book Company, Calcutta.
 James Murray & Co., 12, Government Place, Calcutta. (For Meteorological Publications only.)
 Ray Chaudhury & Co., 68-5, Ashutosh Mukerji Road, Calcutta.
 Scientific Publishing Co., 9, Taitola Lane, Calcutta.
 Chatterjee & Co., 204, Cornwallis Street, Calcutta.
 Standard Law Book Society, 8-2, Hastings Street, Calcutta.
 The Hindu Library, 3, Nandalal Mullick Lane, Calcutta.
 E. C. Basak, Esq., Proprietor, Albert Library, Dacca.
 Mitra Brothers, Rajshahi.
 Higginbothams, Madras.
 Bochose and Sons, Madras.
 G. A. Nateson & Co., Publishers, George Town, Madras.
 Theosophical Publishing House, Adyar, Madras.
 P. Varadachary & Co., Madras.
 S. Murthy & Co., Madras.
 Bright & Co., Trivandrum.
 The Booklover's Resort, Talkad, Trivandrum, South India.
 E. M. Gopalakrishna Kone, Pudumandapam, Madras.
 Central Book Depôt, Madras.
 Vijapur & Co., Visagapatam.
 Thacker & Co., Ltd., Bombay.
 D. B. Taraporevala, Sons & Co., Bombay.
 Sunder Pandurang, Bombay.
 Ram Chandra Govind & Sons, Kalbadevi Road, Bombay.
 N. M. Tripathi & Co., Booksellers, Princess Street, Kalbadevi Road, Bombay.
 New and Secondhand Bookshop, Kalbadevi Road, Bombay.
 Mrs. Radhabai Atmaram Sagoon, Kalbadevi Road, Bombay.
 J. M. Pandia & Co., Bombay.
 Gattal & Co, Bombay.
 A. H. Wheeler & Co., Allahabad, Calcutta and Bombay.
 S. Govind & Co., Sandhurst Road, Ghgaum, Bombay.
 Proprietor, New Kitabhkhana, Poona.
 The Manager, Oriental Book Supplying Agency, 15, Shukrawar, Poona City.
 Rama Krishna Bros., Opposite Vishrambag, Poona City.
 S. P. Bookstall, 21, Budhwar, Poona.
 Mangaldas & Sons, Booksellers and Publishers, Bhaga Talao, Surat.
 The Standard Book and Stationery Co., 32 1/2, Arbab Road, Peshawar.

R. B. Umasdikar & Co., The Bharat Book Depôt, Dharwar.
 The Standard Bookstall, Karachi, Quetta, Delhi, Murree and Rawalpindi.
 The Karachi Book Depôt, Elphinstone Street, Camp, Karachi.
 The English Bookstall, Karachi.
 The Standard Bookstall, Quetta.
 U. F. Mahotra & Co., Quetta.
 J. Ray & Sons, 48, E. & L., Edwardes Road, Rawalpindi, Murree and Lahore.
 The Standard Book Depôt, Lahore, Nainital, Mussoorie, Dalhousie, Ambala Cantonment and Delhi.
 N. B. Mathur, Supdt., Nazir Kanun Hind Press, Allahabad.
 The North India Christian Tract and Book Society, 18, Clive Road, Allahabad.
 Ram Dayal Agarwala, 184, Katra, Allahabad.
 The Indian Army Book Depôt, Juhri, Cawnpore.
 The Indian Army Book Depôt, Jullundur City.
 Manager, Newal Kishore Press, Lucknow.
 The Upper India Publishing House, Ltd., Literature Palace, Ammuudaula Park, Lucknow.
 Rai Sahib M. Gulab Singh & Sons, Muftid-Am Press, Lahore and Allahabad.
 Rama Krishna & Sons, Booksellers, Anarkali, Lahore.
 Puri Brothers, Booksellers and Publishers, Katcheri Road, Lahore.
 The Tilak School Bookshop, Lahore.
 The Standard Bookstall, Lahore.
 The Proprietor, Punjab Sanskrit Book Depôt, Saidmitha Street, Lahore.
 The Insurance Publicity Co., Ltd., Lahore.
 The Punjab Religious Book Society, Lahore.
 Manager of the Imperial Book Depôt, 63, Chaudney Chawk Street, Delhi.
 Fono Book Agency, New Delhi.
 Oxford Book and Stationery Company, Delhi and Calcutta.
 Supdt., American Baptist Mission Press, Rangoon.
 The Modern Publishing House, Ltd., 80, Phayre Street, Rangoon.
 Burma Book Club, Ltd, Rangoon.
 Manager, The "Hitavada," Nagpur.
 Bhisey Brothers, Booksellers and Stationers, Sitabaldi, Nagpur.
 S. O. Talukdar, Proprietor, Students & Co., Cooh Behar.
 The Manager, Ceylon Observer, Colombo.
 The Manager, The Indian Book Shop, Benares City.
 Nandkishore & Bros., Chowk, Benares City.
 The Srivilliputtur Co-operative Trading Union, Ltd., Srivilliputtur (S. I. E.).
 Raghunath Prasad & Sons, Patna City.
 The Students' Emporium, Patna.
 K. L. Mathur & Bros., Guari, Patna City.
 Dandekar Brothers, Indore City.
 Pustakalaya Sahayak Sahakari, Ltd., Baroda.
 The Hyderabad Book Depôt, Chaderghat, Hyderabad (Deccan).
 Thakur & Co., Arrasotl.
 S. Krishnaswami & Co., Teppakulam P. O., Trichinopoly Fort.
 National College Teachers' Union Book Depôt, Trichinopoly.

TABLE OF CONTENTS.

CHAPTER I.

INTRODUCTORY.

	PAGE.
1. Object of the Enquiry	1
2. The "Special Record"	2
3. "Apparent Counts" and "Milyards"	2
4. Scheme of the Report	3

CHAPTER II.

CLASSIFICATION OF PIECE-GOODS.

5. Attributes of Cloth	4
6. Trade Names	6
7. Statistical Classifications	10

CHAPTER III.

PRODUCTION IN INDIA.

8. Centres of Production	15
9. Distribution Areas	27
10. Nature of Output	34

CHAPTER IV.

THE EXTENT OF EXTERNAL COMPETITION.

11. General	39
12. Bordered Grey Goods	42
13. Plain Grey Goods: Shirtings and Longcloth	49
14. Plain Grey Goods: Sheetings, T-cloths and Domesticals	51
15. Plain Grey Goods: Others	55
16. White Goods	57
17. Coloured Goods	63

CHAPTER V.

THE SEVERITY OF EXTERNAL COMPETITION.

18. Statistical Evidence	68
19. Indirect Evidence—General	69
20. Indirect Evidence—Grey Goods	70
21. Indirect Evidence—Coloured Goods	71
22. Indirect Competition	72

CHAPTER VI.

THE TARIFF ON PIECE-GOODS. THE ADMINISTRATIVE ASPECT.

	PAGE.
23. General	73
24. Determination of Value	75
25. Determination of Quantity	77
26. Determination of Class	80
27. Incidence of Duty	82
28. Assessment-units	84
29. Application to Indian Trade	86

CHAPTER VII.

THE TARIFF ON PIECE-GOODS: THE PROTECTIVE ASPECT.

30. General	88
31. Fluctuations and Variations	88
32. Definitions of Class: Plain Grey Goods	91
33. Definitions of Class: Bordered Grey Goods	92
34. Definitions of Class: White Goods	93
35. Definitions of Class: Coloured Goods	93
36. Tariffs of other Countries	94

CHAPTER VIII.

CONCLUSION.

37. Summary of Conclusions	96
38. Acknowledgments	101

Report on the Import Tariff on Cotton Piece-goods and on External Competition in the Cotton Piece-goods Trade.

CHAPTER I.

Introductory.

Object of the enquiry.

1. My instructions are embodied in a Press Communiqué issued by the Government of India on July 22nd, 1929, which read as follows:—

“ The Government of India have decided to appoint Mr. Hardy, Collector of Customs, Calcutta, to examine the possibility of substituting a system of specific duties for the existing system of *ad valorem* assessment of cotton piecegoods. They have also decided in order to give effect to the promise made by His Excellency Lord Irwin, when he received a deputation from the Bombay Millowners' Association at Poona, that their representation would be considered, that Mr. Hardy should simultaneously ascertain and report what changes have taken place since the Tariff Board reported in the volume of imports, classes of goods imported and the extent and severity of external competition with the products of the Indian mills.

Those interested in either branch of the inquiry should communicate with Mr. Hardy direct. Such communications may be addressed to the Cotton Tariff Officer, Custom House, Calcutta.”

I began my enquiry in Calcutta on July 25th and left for Bombay on July 28th where I had discussions with the representatives of the Bombay and Ahmedabad Millowners' Associations.

The Bombay Millowners very kindly placed at my disposal the collection of samples which Mr. Meek and Mr. Maloney took with them on their Trade Mission to the Near East and Africa in 1928, together with samples of cloths now being produced from the finer counts of yarn. These have all been carefully examined by my technical assistant Mr. Hrishikesh Mukherji, Associate of the Manchester College of Technology, who has also analysed a large range of samples of goods imported into both Calcutta and Bombay.

The nature of the available statistical material, which is discussed in later chapters of the report, was such that the spade-work involved in reducing it to something approaching order occupied me until the middle of September when the special material collected for me by the Collectors of Customs was ready. I have therefore been unable, owing to the short time at my disposal, to visit as many of the centres of production and markets as I should have liked. Calcutta is, fortunately, the largest market not only for imported piecegoods but also for the products of the Indian mills and for information regarding other centres I have had to rely largely on correspondence. I can only trust that if, as a result, many inaccuracies are to be found in the body of the report they will not be of such gravity as to vitiate the conclusions reached.

The "Special Record".

2. A perusal of the report of the Tariff Board and of other literature on the subject made it clear from the outset that the fineness of yarn used in weaving the various types of cloth was a most important feature of the problem. The statistical information on this aspect was virtually *nil*. Further, in the published returns of production, weight and linear yardage but not value appeared, while in the import statistics only linear yardage and value were shown. My first step was to attempt to obtain some sort of material to fill these deficiencies. It was clearly impossible in the short time available to expect the mills themselves to conduct anything in the nature of a census of production, but I was able to arrange with the Custom Houses to compile during the month of August a special return showing for each separate consignment of cloth imported under all the principal trade headings, in addition to the length and market value, the length and width of each piece, the weight and the number of warp and weft threads per quarter-inch. These arrangements were made at very short notice but the records were completed without undue inconvenience to the trade and were in my hands by the second week in September. My thanks are due not only to the Collectors of Customs and those of their staff who assisted in this arduous task for the very great care with which the work was performed, but also to the importing public without whose ready and cheerful co-operation it might have proved much more difficult. This compilation will be referred to in this report as the "Special Record".

"Apparent Counts" and "Milyards".

3. The fineness of yarn is measured by "counts", the "count" of any particular yarn being the number of hanks, each 840 yards in length, which weigh one pound. The various operations to which yarn is subjected in the course of weaving make it very difficult to say definitely of what counts the warp and weft of any particular cloth consist. This difficulty will be discussed later in more detail. For the moment it will suffice to say that

the necessary tests are such that it would have been quite impossible to apply them to more than an infinitesimal proportion of the items included in the "Special Record". On the other hand, as the count is a function of length and weight it is possible, if the number of threads to the inch in a piece of cloth are known, to calculate from the dimensions and weight of the cloth the average weight of the yarn. We can thus arrive at a figure which is a mean between the counts of the warp and the weft yarn *in their finished state*. I propose to refer to this figure as the "*apparent count*" of the cloth. The formula for calculating the "*apparent count*" can be deduced by a simple calculation from the definition of "*count*". It is:—

$$\text{"Apparent count"} = \frac{6}{35} \left(\frac{\text{area in square yards} \times \text{threads per } \frac{1}{4} \text{ inch square}}{\text{Weight in pounds}} \right).$$

It makes no allowance for sizing, and as a certain amount of sizing is always applied to warp yarn the mean between the counts of yarn actually used will always be greater than the "*apparent count*". *E.g.*, if the apparent count is 30s the actual yarns used cannot be coarser than 30 × 32s and may, if heavily sized, be as fine as 40 × 44s.

Although a classification of any type of cloth on the basis of apparent counts will make no allowance for sizing or other weight added in the process of manufacture it will provide a limit to the possible coarseness of the yarn used in weaving any cloth and will have the additional advantage of bringing into the same class lightly-sized cloths and those more heavily-sized cloths woven from finer yarns which compete with them. It will be seen later that this method of competition is an important feature of certain branches of the import trade.

Throughout the statistical portions of this report quantities of cloth, unless otherwise stated, are given in millions of linear yards which for brevity will be referred to as "*milyards*". None of the Indian statistics record quantities by area, but though area is of importance when comparing prices of different kinds of cloth, linear quantities furnish a sufficiently accurate basis for other comparative purposes.

Scheme of the Report.

4. Chapter II of the report deals with the classification of piece-goods for statistical purposes with special reference to the various statistical returns relating to the piece-goods trade which are published in India. In Chapter III the nature and extent of the production of piece-goods in India is discussed. In Chapter IV a comparison is made, group by group, between imports and production and in Chapter V certain aspects of the severity of competition are considered. In the next two chapters the rival claims of specific and *ad valorem* duties are discussed first from an administrative and then from a protective point of view. Chapter VIII summarises the conclusions reached in the preceding chapters.

CHAPTER II.

Classification of Piece-goods.

Attributes of Cloth.

5. An essential preliminary to a successful study of the cotton cloth trade in India is a realisation of the extreme diversity of the kinds of cloth which enter into the trade and an appreciation of the various factors which contribute to that diversity. I propose to commence this report with a brief resumé of the more important of these factors, many of which are of course matters of everyday knowledge.

Raw cotton.—The quality of a woven cloth is to a large extent dependent on the cotton from which it is woven, since different varieties of cotton differ in length of staple, fineness, colour and strength. Briefly it may be said that the great bulk of Indian cotton is only suitable for spinning into yarn of counts of 30s and below, though a small proportion can be spun into 36s of sufficient strength to be used as warp thread or into 40s for use as weft. For the finer yarns American and other long-stapled cottons are used, the finest yarns being spun from Egyptian cotton.

Yarn.—The fineness or “count” of the yarn used is a most important factor in the quality of cloth. (The “count” of yarn may be defined as the number of yards of yarn which weigh $\frac{1}{84}$ lb. avoirdupois.) Warp yarn or “twist” is usually of a lower count, *i.e.*, coarser than yarn used for the weft threads, but this is not always the case and special effects are sometimes produced, *e.g.* in poplins, by the use of fine warp and coarse weft threads. Warp yarns are usually spun “twist way”, *i.e.*, counter-clockwise, and weft yarns in the opposite direction but in certain varieties of cloth this distinction is not adhered to. Yarns may be sized (in general warp yarns are sized and weft yarns are not). They may also be dyed, bleached or otherwise treated before weaving.

Weave.—The texture of a cloth is largely dependent on the manner in which the warp and weft threads are interwoven. The “plain” weave which is adopted for the majority of cloths is that in which each thread in either direction runs alternately under and over one in the opposite direction. Other common weaves are the “twill” in which the method of interlacing warp with weft describes a uniform diagonal line on its surface, the “jean”, and the “sateen”.

Reed and Pick.—These factors are measures of the closeness of the weave. The “reed” is generally stated in terms of the number of warp threads per inch (or quarter-inch) of width and “pick” in terms of the number of weft threads per inch (or quarter-inch) of length. It is clear that the weight of cloth per unit

area will depend on the counts of yarn used in weaving and on the reed and pick, due allowance being made for dyeing, sizing or "filling".

Dimensions.—Cloths of the same quality may be made up into different lengths and widths for particular purposes and in the class of goods next discussed, assortment of sizes is an important factor for sale purposes.

Borders and Headings.—The great majority of cotton cloths have a "selvedge". When, however, the selvedge is more than $\frac{1}{8}$ inch wide it is treated as a border and becomes an important factor in the saleability of the cloth. A heading is a stripe woven (or sometimes printed) across the cloth to mark the end of a unit, when the cloth consists of a set of units rather than a mere length. These borders and headings are of very great importance in a large class of goods, particularly *dhutis*, imported into and produced in India. These goods are, strictly speaking, garments and not "piece-goods" in that they are made to definite sizes ready to wear without any stitching or cutting except so far as may be necessary to separate a single garment from a set of two or more woven in one piece. The width, colour and weave of the border and heading are important sale-factors and affect both cost and value considerably.

Filling and Finishing.—Starch and additional weight in other forms may be added to cloth after weaving. Cloth may be "calendered" or mercerised or otherwise treated to improve its appearance. Some of these processes may effect a permanent change in the cloth. Others may give it an attractive appearance which is only temporary and will disappear after washing.

Bleaching.—A very large class of imported cloths are bleached either in the yarn or more commonly after weaving.

Printing.—This method of producing coloured cloth may be applied either to bleached or unbleached cloth. In certain cases even dyed cloth or cloth with a woven coloured pattern has a further pattern printed on its surface.

Dyeing.—Cloth dyed in the piece is subject to variations of shade and also to variations of fastness and weight according to the process employed.

Colour-weaving.—The varieties of cloth woven into coloured patterns are obviously unlimited. In fact this factor may really include any or all of the others, the only additional feature being the selection of the various coloured warp and weft threads in the weave. Self-coloured goods woven from dyed yarn are sometimes distinguished from goods of the same shade dyed in the piece by the insertion in the selvedge of one or more bleached threads.

Assortment, fold and packing.—These details, while not affecting the quality of a particular piece of cloth, may affect the market value in wholesale quantities. In particular, the selection of suitable assortments, both as to size and borders, of *dhutis* and other

bordered goods is a most important element in their saleability. A parcel of a hundred pairs of identical *dhutis* would be of little more use to a rural Indian cloth-merchant, than would two hundred shirts all of the same pattern and all with 15½-inch collars to a small Oxford Street outfitter.

Marks.—While hardly a factor contributing to variety in cloth this is an undoubted factor in the determination of value, and identical cloths off the same looms are often sold under different marks by different importers at substantially different prices.

Trade Names.

6. Among the many pitfalls which beset the worker in the field of comparative trade statistics is the absence of uniformity in the use of trade names. In dealing with textile statistics it is necessary to proceed with particular caution. In India the classifications of piece-goods in the import returns, the export returns, the re-export returns and the returns of production are all different. After what has been said regarding the diversity of cotton cloth it will be obvious that no single factor will provide a satisfactory basis for classification, and each of the various returns, all of which, with the exception of the re-export figures, make use of trade names, presents an independent attempt to provide, within the limits of convenience, such details regarding the trade as may be most useful to those engaged in it. Since few trade names are consistently used without any variation of meaning it is clear that the same term appearing in two sets of returns cannot necessarily be assumed to have the same meaning in both. Many of the names applied to piece-goods have entirely lost their original significance. A number of them, originally derived from fancy Indian names, came to designate particular dimensions of cloth and later to be applied somewhat loosely to cloth of particular fineness or weave, made originally in those dimensions and subsequently in other sizes. A further complication arises from the fact that the classifications adopted in the trade returns are not accompanied by definitions of the terms used and, when changes are made in the classifications, it is not usual to issue to those concerned with the compilation any very definite instructions as to their meaning. Consequently the same article may be shown in the import returns under different heads at different ports. Further, since all cotton piece-goods imported have hitherto been dutiable at the same *ad valorem* rate, a misdescription of goods in an importer's declaration has not affected the assessment. Consequently the assessing officers have naturally paid less attention to the nomenclature adopted by the importer than if a question of duty had been involved while, on the other hand, the statistical officers are not ordinarily in a position to challenge the correctness of the declarations which come to them. Similarly, it is by no means certain that there is complete uniformity among the Indian mills in classifying goods for the purpose of their production returns. Despite these difficulties it is possible by

a judicious grouping of the headings in the various returns to make useful comparisons between figures of import and production. In fact my object in referring here to the possibility of errors in the statistics is not to cast any doubt on the conclusions I propose to draw from them, since I believe I have allowed in all cases for a reasonable margin of error. It is rather to emphasise the necessity for a very early revision of the whole system of classification in order to simplify future enquiry into the nature and extent of competition. The recommendations made in paragraph 87 of the Noyce Report have not led to any substantial improvement and I would strongly urge that the matter be made the subject of a thorough enquiry in time to have any changes that may be decided introduced from the beginning of next financial year.

Before discussing the various statistical classifications it is desirable to give a brief idea of the ordinarily accepted meanings of the various trade names appearing therein.

The following terms imply actual garment-units rather than lengths of cloth or piece-goods proper:—*Chadar*, *dhuti*, *sari*, *scarf*, *lungi* and *sarong*. They are marketed occasionally in single pieces or in sets of three or more but most commonly in pairs, except in the case of *lungis* and *sarongs* which may be sold in “corges” consisting of as many as 20 pieces.

The word *dhuti* as used in the import returns implies a cloth of dimensions varying from about $2\frac{1}{2}$ yards by 25" to 6 yards by 50" with a woven coloured (or occasionally bleached) border not more than $\frac{3}{4}$ inch wide and a somewhat similar heading. It is a garment worn by men principally in the north and north-east of India. Certain small imports of unbordered grey *dhutis* appearing in the trade returns are probably the results of misclassification. The word *dhuti* means literally a “washable thing”, and is also used in common parlance to include any male loin-cloth whether it be a single unit or cut from a length of plain cloth. In the trade in general, and in particular in the published statistics of production, it is used in a third sense and there includes not only *dhutis* proper but also the grey and white bordered *saris* described below.

The *sari* is the feminine counterpart of the *dhuti* and the word is frequently used in a general sense to imply any piece of cloth used as a feminine nether garment. The grey or white *sari* proper differs from the grey or white *dhuti* in having the border more than three quarters of an inch wide. The coloured *sari* is made in a great variety of colours and patterns and is generally worn by women of those classes in which the bordered grey or white *dhuti* is not worn by men. *Saris* are also made and sold in sets of two or more.

The *chadar* is likewise a bordered and headed grey or white article each unit being wider and shorter than the *dhuti*. It is used as a bed-sheet and as a “negligé” wrapper.

The *scarf* is a similar garment worn as a “negligé” wrapper. It is of finer texture than the *chadar* and is therefore not used as a bed-sheet as a rule.

The cotton *lungi* or *sarong* is worn by the poorer classes of Burman, men and women alike, and by certain classes of men in Eastern Bengal. It is a coloured garment generally with a pronounced check and is worn in Burma with the two ends stitched together. The length is from 2 to $2\frac{1}{2}$ yards. The "*sarong*" is the Malay equivalent of the "*lungyi*", and like the latter, which is a Burmese word, merely means "nether garment". Even in the trade the terms are practically synonymous, the term *sarong* being used in Rangoon mainly for goods re-shipped thither from the Singapore market. *Lungis* and *sarongs* are woven in "corges" of as many as 20 units, and each unit has at one end a wide "kapala" or stripe.

The *susi* is a general term used to cover a large variety of checked or striped coloured cloths which are included with coloured *saris* in the statistics of production. For practical purposes it may be taken to include any goods of plain weave with a woven pattern. It is not used in the import trade.

The classes distinguished by the type of weave are *twills*, *drills* and *jeans*, *velvets* and *velveteens*, *sateens* and *Italians*. A *twill* is a four-shaft and a *jean* a three or four-shaft weave. A *drill* is a *jean* with a warp surface and *velvets* and *velveteens* are, of course, piled fabrics. *Sateens* and *Italians* are generally of five-shaft weave or more.

The following names are applied in the various returns to grey or white cloths of plain weave:—

Dongri.	Jaconets.
Khadi.	Mulls.
Khaddar.	Madapollams.
Printers.	Muslins.
T-Cloths.	Lawns.
Domestics.	Nainsooks.
Sheetings.	Cambrics.
Shirtings.	Flannels and Flannelettes.
Longcloth.	

Dongri, *Khadi* and *Khaddar* are coarse cloths woven from the lowest counts of yarn. They are sold in competition with hand-loom cloth from hand-spun yarn.

Printers constitute a class of coarse grey cloth of special dimensions and specially surfaced to receive a printed pattern. The machine printing industry in India has always been very small and imports of printers have never been on anything but a very small scale, but there is a considerable output in the Indian mills which is used for hand-printed quilt-covers.

T-Cloths, *Domestics* and *Sheetings* are grouped together in the returns of production. All three are plain heavy grey cloths. In

the T-cloth the warp and weft are usually of the same count and the length is 24 yards. In the *Domestic* the warp is finer than the weft and the length is from 20 to 66 yards. Both are shipped in various widths. The grey *sheeting* as known in the Indian trade has the warp coarser than the weft and the usual dimensions are 35" or 36" by 40 yards weighing from 14 to 17 lbs. per piece. In Bombay, however, a 30-yard size of the same quality is both produced and imported. Recently the medium sheetings have been ousted in favour of a 36" by 40-yard cloth weighing 11½ to 12 lbs. This has generally been declared as a heavy shirting and recorded in the shirting class, thereby giving a rather misleading impression of the progress of the sheeting trade.

A grey *shirting* is a cloth from 36" to 52" wide by 37 to 39 yards long. It is grouped with grey *longcloth* in both trade and production returns though the latter term is now almost obsolete in the import trade. The term shirting, though primarily implying certain dimensions, is also often used with reference to quality. In the sizes given above very little cloth woven from finer yarns than 40s x 44s is shipped to India, and "shirting quality" is therefore used to indicate a cloth not exceeding this limit of fineness. In particular, *dhutis* are grouped in the Lancashire trade roughly into three classes, *shirting dhutis*, *jaconet dhutis* and *mull dhutis*. The *jaconet dhuti* is woven with warp yarns from 40s to 48s and the *mull dhuti* from finer yarns. There is also a small class of *dhutis* sold in the Calcutta market, principally to meet a demand from parts of Bihar, known as "*dhuti jaconets*" and differing only from the ordinary Calcutta *dhuti* in being slightly longer. These have not infrequently been classified wrongly as jaconets in the import returns.

The grey *jaconet* proper is made in all widths but is essentially a cloth 18 to 22 yards in length. The application of the name "jaconet" to the class of *dhutis* just mentioned is no doubt due to the fact that these *dhutis* are often made up in sets of three (known as "tikris") of about this length. In the import returns for grey cloth the heading "*jaconets, including madapollams, mulls and cambrics*," comprises other plain grey cloths of plain weave in lengths of 18 to 20 yards, but as these are almost invariably woven from yarns finer than 40s the trade-head may be regarded as including all the finer grey cloths.

The grey *madapollam* is of very open weave, the grey *mull* is generally woven from yarns 50s or finer and the grey *cambric* varies in fineness but usually has a coarser weft than warp.

When applied to white cloth, some of these terms have a slightly different significance. The white *shirting* is normally 40 yards in length and of various widths. Unlike the grey *shirting* it is often made from the finer counts of yarn. White *mulls* and white *nainsooks* are made in lengths of 18 to 20 yards. The former is essentially a fine cloth while the latter may be of any texture but is folded in a special manner. White *jaconets*, *cambrics*, *mada-*

pollams and *muslins* are grouped together in the import returns and are shipped in various dimensions. *Lawns* are a fine white cloth generally shipped in 10 yard lengths.

Prints and *Chintz* form a particular class of coarse printed goods of special dimensions. The head will be found under both the "Printed" and the "Dyed" sub-division of coloured goods in the Import returns. In the latter group the printing is done on dyed cloth, in the former on grey or white (generally grey).

Coatings and Trouserings.—These terms are applied to a variety of a heavy coarse fancy cloths, sometimes loaded almost to the consistency of serge or felt, and used for the purpose which their name implies. The terms occur only in the Import Trade Returns.

Tweeds and checks form a head in the production returns and comprise a class somewhat similar to that covered by "coatings and trouserings".

Checks, Spots and Stripes.—As applied to white goods these imply self-coloured patterns woven by the use of different kinds of white yarn or by modification of the weave in different parts of the cloth. The body of the cloth should be of plain weave, though in some Custom Houses striped twills and drills are shown under "checks, spots and stripes", while in others white-striped white shirtings are shown as shirtings if of the usual shirting dimensions. Printed or woven goods with checks, spots or stripes are classified under this head only if the main body of the cloth is not specifically provided for.

Tent Cloth is not imported in any serious quantity. It is a heavy grey *twill* in special widths used, as its name implies, for tent-making.

Statistical classifications.

7. Up to the year 1918-19 piece-goods were divided in the Import Trade Returns published by the Department of Statistics into three main groups, grey (unbleached), white (bleached) and coloured. In each of these groups there were sub-heads for certain special weaves and for those goods which were, strictly speaking, garment-units and not piece-goods proper. The coloured borders of goods of this latter class were ignored and for the purpose of the returns they were classified under "grey", "white" or "coloured" according to the nature of the body of the cloth. A separate head for certain printed goods was maintained in the coloured class and other cloths of plain weave in each class were split up into sub-heads bearing trade names. No attempt has ever made to define these sub-heads authoritatively but in the main the distinction between them has been dependent on the fineness of the yarn from which they were woven and on the weight of the cloth. Certain alterations were made in the grouping from time to time, allied classes were combined and new classes were separated. Roughly speaking

the following was the classification over the period 1899-1900 to 1918-19:—

Grey (unbleached)

Garment-units of plain weave.	{ Chadars. Dhutis, Saris and Scarves.
Piece-goods proper of special weaves.	{ Drills and Jeans.
Piece-goods proper of plain weave distinguished by texture and weight.	{ Jaconets, including Mulls, Madapollams, Cambrics, etc. Longcloth and Shirtings. Printers. Sheetings. T-Cloths and Domestics.
Unspecified.	

White (bleached).

Garment-units of plain weave.	{ Chadars. Dhutis, Saris and Scarves.
Piece-goods proper of special weaves.	{ Checks, Spots and Stripes. Drills and Jeans. Twill.
Piece-goods proper of plain-weave distinguished by texture and weight.	{ Mulls. Jaconets, Madapollams, Cambrics. Muslins and Lawns. Nainsooks. Longcloth and Shirtings.
Unspecified.	

Coloured.

Garment-units of plain weave.	{ Chadars. Dhutis, Saris and Scarves. Lungis.
Piece-goods proper of special weaves.	{ Checks, Spots and Stripes. Drills and Jeans. Twill.
Piece-goods proper of plain weave distinguished by texture.	{ Cambrics, Madapollams, Muslins, Mulls and Jaconets. Shirtings.
Printed goods	Prints and Chintz.
Unspecified.	

From the year 1919-20 a number of changes were introduced. All heads in the grey class were sub-divided into plain and bordered. This appears to have been due to a misapprehension and to have served no useful purpose. Only the most trifling imports of *dhutis*, etc., have been recorded under the "plain" heads and hardly any "bordered" goods under the other heads, and it is likely that such figures as have been recorded are the result of errors in posting. I propose to ignore this division of the grey class and to combine the figures for "plain" and "bordered" under each detailed head. In the "white" class *mulls*, which had been included with *Jaconets* since 1904-05, were again given a separate head from 1917-18 and *lawns* were separated from the *Jaconet* head in the following year. No further change of importance was made in the classification of white goods, and neither in the grey nor the white class was any substantial volume of trade recorded as "unspecified".

The classification of coloured goods was much less satisfactory and from 15 to 25 per cent. of the trade in this group was annually classed as "unspecified". From 1919-20 the coloured group was divided into three sub-groups, "Printed", "Dyed" (in the piece) and "Woven" (from dyed yarns), in each of which the original heads were retained. In each group was also included a head for "flannel and flannelette" which had been started as a "coloured" head in 1917-18. *Lungis* and *Sarongs* were separated from the "unspecified" head in each group, and separate heads for *Sateens*, for *Velvet* and *Velveteens* and for *Coatings* and *Trouserings* were opened in the appropriate groups in 1926-27. The "unspecified" heads have now been reduced to more reasonable proportions, but they still contain such important items as umbrella cloth. From 1912-13 "Fents" which had formerly not been shown as piece-goods were included as a separate head.

In the Re-export returns and in the returns of Coasting trade in foreign goods piece-goods are shown under the three groups, *grey*, *white* and *coloured*, with a separate head in the former for the very small trade in fents.

In the Export returns the following is the classification:—

Grey	. . . . .	}	Chadars and Dhutis.
			Drills and Jeans.
			T-Cloth and Domestics.
			Shirtings.
			Unspecified.
White	. . . . .	}	Chadars and Dhutis.
			Drills and Jeans.
			T-Cloth and Domestics.
			Shirtings.
			Unspecified.

Coloured	{ Lungis and Saris. Drills and Jeans. Unspecified.
--------------------	--

In the returns of Coasting trade in Indian goods the following is the classification :—

Grey	{ Chadars and Dhutis. T-Cloth and Domestics. Shirtsings. Unspecified.	
White		
Coloured		{ Lungis and Saris. Drills and Jeans. Unspecified.

The statistics of production in Indian Mills published by the Department of Statistics display the weight and linear yardage (but not the value) of the cloth produced under a more limited number of classes than in the Import returns. Coloured goods are all relegated to a single class which comprises ordinarily 27 per cent. of the total yardage of cloth and in the case of the Bombay Mills 34 per cent. Grey and bleached goods are classified together under ten heads, namely :—

Chadars.	Shirtsings and Longcloth.
Dhutis.	T-Cloth Domestics and Sheetings.
Drills and Jeans.	Tenth cloth.
Cambrics and Lawns.	Khadi, Dungee or Khaddar
Printers.	Other sorts.

No steps appear to have been taken to carry out the recommendation in paragraph 87 of the Noyce Report that grey and bleached goods should be shown separately.

The Tariff Board Report also suggested that, in the published statistics of production, figures should be given for coloured goods at least under the seven heads under which they were given in the returns submitted by the Mills. This very important recommendation also appears to have been overlooked but fortunately the returns from the Bombay Presidency which are consolidated in the Bombay Custom House have been submitted to the Director of Statistics in detailed form and he has been able to compile from them detailed

figures for 3 years so far as mills in the Bombay Presidency are concerned. The detailed heads are as follows:—

Chadars.	Striped Saris and Susis.
Lungis and Dhutis.	Cotton Tweeds and Checks.
Drills and Jeans.	Others.
Dyed greys.	

CHAPTER III.

Production in India.

Centres of Production.

8. Tables I and II are reproductions brought up to the year 1928-29 of tables 3 and 4 printed in the supplement to the Tariff Board's report. They summarise the progress made in the production of cotton piece-goods in mills (a) in All-India and (b) in Bombay Island for the past 22-years. It will be seen that under almost every head there has been steady progress up to the year 1927-28. The stimulus afforded to local industry by the outbreak of war is clearly reflected in the figures and the only serious checks noticeable in the general rate of progress were in the two years before the war when Lancashire prices were low, in 1918-19 when there was difficulty in obtaining stores and replacing and extending plant and again two years later when exchange reached its highest level. The year 1927-28 was not altogether free from labour troubles in Bombay and, while the output of mills elsewhere in India advanced, the Bombay output remained stationary. The continuance of labour troubles in 1928-29 and 1929-30 caused a severe set-back in Bombay and provided a considerable stimulus to the other mills and even when full and amicable working is resumed in Bombay some part of the transfer of trade to other centres of production is bound to remain. It therefore seems reasonable to regard 1927-28 as typifying the probable relative positions of Bombay and other centres when normal conditions are resumed and it is for this reason that in many cases I have taken the figures for that year for comparative purposes.

TABLE No. I.—*Detailed Statement of the Quantity in pounds and their Equivalent Grand Total, India (British India) Twelve months*

Description	1907-08	1908-09	1909-10	1910-11.	
Grey and Bleached Piece-goods—					
Chadars	Pounds	14,922	13,264	17,801	19,110
	Yards	42,826	38,765	51,041	56,089
Dhutis	Pounds	48,358	46,501	50,111	51,466
	Yards	237,900	233,878	249,574	253,246
Drills and Jeans	Pounds	5,912	6,518	6,143	7,341
	Yards	21,573	24,708	22,084	25,604
Cambrics and Lawns	Pounds	492	424	571	553
	Yards	3,152	2,759	4,088	4,171
Printers	Pounds	5,705	5,686	7,310	7,217
	Yards	7,744	26,186	33,003	33,469
Shirtings and Longcloth	Pounds	48,007	48,634	57,848	66,553
	Yards	207,227	206,314	244,396	287,568
F-cloth, Domestic and Sheetings,	Pounds	25,434	26,217	31,013	30,997
	Yards	120,315	123,841	140,593	139,433
Tent Cloth	Pounds	2,559	2,395	2,299	2,395
	Yards	6,184	7,693	5,780	5,968
Khadi, Dungee or Khadar.	Pounds . . . . .	..	..	..	..
	Yards . . . . .	..	..	..	..
Other Sorts	Pounds	3,695	4,859	5,502	6,097
	Yards	14,126	21,827	20,460	23,645
Total	Pounds	155,064	154,997	178,602	191,736
	Yards	680,037	685,972	771,517	829,197
Coloured Piece-goods					
Coloured Piece-goods	Pounds	31,235	34,932	47,633	51,786
	Yards	123,380	138,517	192,352	213,545
Grey and Coloured Goods other than Piece-goods.	Pounds	1,615	1,592	1,704	1,598
	Dozens	464	400	429	486
Hosiery	Pounds	424	602	624	624
	Dozens	271	212	332	340
Miscellaneous	Pounds	192	241	255	71
Cotton Goods mixed with Silk or Wool,	Pounds . . . . .	..	..	..	..
GRAND TOTAL	Pounds	189,052	192,365	228,324	245,815
	Yards	808,427	824,489	963,869	1,042,742
	Dozens	734	643	761	825

valent in Yards and Description of Woven Goods produced in Indian Mills and Indian States), 000's omitted

April to March

1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.
22,527	25,204	23,673	22,797	26,055	22,009	17,766
68,177	75,396	69,870	65,603	75,163	67,761	54,049
56,277	60,151	59,132	57,400	70,037	66,641	70,135
268,460	291,476	284,770	258,974	323,640	300,949	325,017
7,568	7,895	7,510	8,521	12,658	15,403	21,244
27,567	28,931	27,813	30,789	46,329	56,503	78,611
980	1,067	744	517	1,025	1,124	1,490
6,326	7,063	5,053	3,545	5,701	6,379	8,277
5,558	6,258	6,512	6,448	6 109	7,288	5,982
26,399	29,450	30,384	28,007	26,900	31,599	26,593
71,593	68,644	66,458	75,520	100,006	98,039	99,204
313,053	302,624	292,488	320,705	419,625	427,753	450,630
31,576	33,238	29,733	30,815	35,321	46,403	31,169
142,107	148,095	128,969	134,288	151,401	192,132	137,396
2,475	2,382	2,327	3,906	5,479	6,553	12,002
6,062	5,782	5,814	8,962	11,844	17,181	24,550
..
..
6,327	6,272	6,674	7,653	9,975	9,392	9,832
25,229	25,384	27,286	29,627	34,264	35,913	35,899
204,901	211,111	202,768	213,576	267,165	274,851	268,772
683,381	914,191	872,446	680,502	1,094,867	1,136,170	1,141,022
59,554	71,828	68,829	61,067	61,604	98,352	106,752
252,771	306,251	291,846	255,206	346,647	441,962	473,105
1,606	1,813	2,166	1,735	2,541	3,113	3,639
417	415	636	512	653	660	706
497	501	471	286	356	410	349
273	285	267	179	220	237	215
86	218	158	341	589	960	1,638
..	..	..	..	..	43	253
266,644	285,471	274,389	277,006	352,255	377,729	381,404
1,136,152	1,220,443	1,104,292	1,135,708	1,441,515	1,578,133	1,614,126
690	700	905	692	874	897	921

TABLE

Description		1918-19	1919-20	1920-21	1921-22
Grey and Bleached Piece-goods—					
Chadars	Pounds	12,972	23,205	19,841	19,712
	Yards	37,914	68,093	59,194	59,428
Dhatus	Pounds	77,777	73,413	73,685	96,157
	Yards	369,357	337,602	340,128	455,637
Drills and Jeans	Pounds	15,105	21,583	19,722	15,376
	Yards	54,284	80,845	74,305	60,452
Cambrics and Lawns	Pounds	941	1,666	1,219	1,292
	Yards	5,195	8,473	5,951	7,347
Printers	Pounds	5,181	6,774	6,306	8,038
	Yards	23,067	29,837	28,284	35,622
Shirtings and Longcloth	Pounds	86,160	100,625	101,138	109,974
	Yards	393,779	444,501	456,240	487,034
T-cloth, Domestic and Sheetings	Pounds	24,641	27,449	21,293	19,117
	Yards	110,511	122,402	97,388	84,117
Tent Cloth	Pounds	20,109	2,890	3,772	3,247
	Yards	36,870	5,671	7,508	7,255
Khadi, Dungee or Khadar.	Pounds	.	..	.	.
	Yards	.	.	..	.
Other Sorts	Pounds	14,955	19,028	16,589	27,123
	Yards	45,733	66,649	60,886	87,859
Total	Pounds	257,840	276,632	263,564	300,036
	Yards	1,076,711	1,164,073	1,129,883	1,284,752
Coloured Piece-goods	Pounds	85,603	102,146	98,388	98,433
	Yards	374,015	475,706	450,967	446,822
Grey and Coloured Goods other than Piece-goods.	Pounds	3,744	3,320	3,485	3,053
	Dozens	721	659	707	629
Hosiery	Pounds	261	294	411	363
	Dozens	149	159	117	115
Miscellaneous	Pounds	1,827	1,250	1,408	1,433
Cotton Goods mixed with Silk or Wool	Pounds	307	204	227	178
GRAND TOTAL	Pounds	349,580	383,847	367,482	403,496
	Yards	1,450,726	1,639,779	1,580,850	1,731,573
	Dozens	870	818	825	744

PRODUCTION IN INDIA.

19

No. I—contd.

1922-23.	1923-24.	1924-25.	1925-26	1926-27.	1927-28	1928-29
20,671	20,237	21,646	22,787	24,137	25,775	20,571
63,202	58,003	61,614	62,076	65,555	66,824	56,681
91,908	85,658	96,507	110,134	123,121	129,746	115,263
431,145	399,214	458,404	516,394	585,705	615,946	564,154
14,446	13,931	18,521	18,106	20,177	22,913	19,087
56,306	54,974	77,191	74,150	79,704	91,198	76,337
897	777	1,144	581	664	986	744
5,554	3,649	5,395	3,169	3,386	5,479	4,601
9,078	7,855	7,760	6,004	4,856	4,609	4,770
39,072	34,831	32,777	25,872	20,899	20,246	23,471
105,607	100,315	118,059	120,020	134,772	140,832	107,701
470,549	443,848	525,524	521,126	580,536	620,028	474,222
17,853	15,608	17,463	17,371	23,680	24,030	19,699
81,002	68,075	77,742	74,073	93,315	92,164	75,488
2,867	2,795	4,156	3,991	3,167	2,618	2,946
6,588	6,573	4,894	9,005	6,732	6,064	6,935
..	..	29,434	30,445	35,810	41,485	31,575
..	..	87,152	87,406	98,671	116,119	93,639
37,036	39,875	10,576	9,826	11,327	9,874	3,569
118,371	128,488	46,675	41,035	42,735	40,944	35,015
300,366	287,050	325,266	339,265	381,711	403,468	330,925
1,271,790	1,197,654	1,332,368	1,414,306	1,577,238	1,675,012	1,409,593
98,635	108,330	125,563	116,695	145,321	148,298	102,176
453,494	503,920	588,031	540,157	681,478	681,553	483,676
3,423	2,575	2,952	3,727	4,151	4,205	3,331
1,213	514	611	956	1,006	992	786
464	548	673	873	983	1,214	1,481
206	245	277	316	352	438	449
2,201	2,237	3,949	3,772	4,289	5,827	4,404
165	207	272	708	2,314	4,794	3,212
405,254	401,661	458,840	465,040	538,709	567,806	445,529
1,725,284	1,701,574	1,970,399	1,954,463	2,258,716	2,356,565	1,893,269
1,418	759	888	1,272	1,353	1,430	1,235

TABLE NO. II.—Detailed Statement of the Quantity (in Pounds) and their
Bombay Island. (Twelve months)

Description of Goods.	1907-08.	1908-09.	1909-10.	1910-11.	
Grey and Bleached Goods—					
Chadara	{ Pounds	11,128	9,395	11,925	11,603
	{ Yards	31,958	27,556	34,777	33,640
Dhutis	{ Pounds	14,287	11,770	11,291	10,697
	{ Yards	69,743	57,751	56,700	52,385
Drills and Jeans	{ Pounds	2,668	2,793	2,835	3,413
	{ Yards	9,774	10,509	10,469	12,566
Cambrics and Lawns	{ Pounds	337	273	375	357
	{ Yards	2,212	1,859	2,508	2,479
Printers	{ Pounds	196	79	56	31
	{ Yards	985	408	310	157
Shirts and Longcloths.	{ Pounds	35,290	34,004	39,100	43,469
	{ Yards	159,414	151,290	173,587	195,809
T-cloth, Domestic and Sheetings.	{ Pounds	18,363	19,355	21,721	21,064
	{ Yards	89,110	93,639	102,004	98,545
Tent Cloth	{ Pounds	1,024	1,004	741	643
	{ Yards	2,056	2,023	1,520	1,343
Khadi, Dungee or Khad- dar.	{ Pounds . . . . .	..	..	..	..
	{ Yards . . . . .	..	..	..	..
Other Sorts	{ Pounds	942	1,023	1,042	1,291
	{ Yards	4,364	4,671	4,859	5,752
Total	{ Pounds	84,234	79,698	89,086	92,567
	{ Yards	360,616	349,707	386,736	402,676
Coloured Piece-goods	{ Pounds	24,048	25,834	35,279	38,565
	{ Yards	102,201	105,932	145,489	160,549
Grey and Coloured Goods other than Piece-goods.	{ Pounds	1,569	1,389	1,424	1,252
	{ Dozens	396	327	344	366
Hosiery	{ Pounds	493	382	417	400
	{ Dozens	271	241	257	248
Miscellaneous	Pounds	74	22	12	19
Cotton Goods mixed with Silk or Wool.	Pounds . . . . .	..	..	..	..
TOTAL, BOMBAY ISLAND	{ Pounds	110,423	107,275	126,213	132,303
	{ Yards	471,817	455,639	532,225	563,225
	{ Dozens	666	568	602	614

Equivalent in Yards and Description of Woven Goods Produced in April to March) 000's omitted

1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.
13,050	13,873	12,436	10,148	11,861	11,108	10,267
39,831	39,726	35,962	28,819	33,336	31,655	27,816
11,574	11,515	12,049	10,354	13,874	10,847	13,512
54,207	54,710	56,703	46,726	61,727	48,341	65,429
3,652	3,779	3,872	4,671	7,623	9,502	14,603
14,109	14,865	14,898	17,567	29,660	36,452	55,596
632	854	516	394	488	585	800
4,252	5,951	3,636	2,831	3,476	4,074	5,269
17	24	51	14	17	24	12
78	123	278	79	116	122	61
47,973	43,488	42,070	46,220	62,770	52,334	63,768
219,009	198,955	189,617	201,048	269,383	236,283	297,201
20,108	19,864	16,927	17,670	24,154	32,898	19,972
96,057	92,935	78,322	84,275	103,768	144,514	93,344
797	795	714	1,534	2,782	3,905	4,657
1,631	1,684	1,535	3,103	5,642	7,189	8,820
..
..
1,638	1,418	1,591	1,577	1,721	1,647	2,558
7,472	6,792	7,941	7,413	7,773	6,662	9,644
99,440	95,609	90,227	92,581	125,289	122,346	130,139
436,646	415,732	388,834	391,867	519,881	515,202	563,180
43,150	51,820	46,451	39,311	56,838	66,672	79,395
185,805	226,370	203,581	170,456	251,385	314,893	369,958
1,189	1,209	1,582	1,146	1,834	2,483	2,950
308	246	478	343	478	532	581
305	255	231	123	177	160	171
191	181	179	104	142	143	140
11	94	79	202	352	594	1,029
..	..	..	..	..	15	96
144,095	148,987	138,570	133,363	184,490	192,771	213,780
622,451	642,102	592,365	562,323	771,266	830,185	933,133
499	427	657	452	620	675	721

TABLE

Description of Goods		1918-19.	1919-20.	1920-21	1921-22.
Grey and Bleached Goods—					
Chadars	{ Pounds .	5,501	10,416	8,769	9,713
	{ Yards .	14,820	29,010	25,102	28,248
Dhutis	{ Pounds .	17,283	15,906	15,072	23,916
	{ Yards .	88,605	78,919	77,547	121,793
Drills and Jeans	{ Pounds .	8,888	13,118	11,435	8,383
	{ Yards .	33,292	50,170	46,034	35,504
Cambrics and Lawns	{ Pounds .	497	589	404	686
	{ Yards .	3,100	3,897	2,470	4,448
Printers	{ Pounds .	57	83	70	303
	{ Yards .	314	449	376	1,473
Shirtings and Longcloths	{ Pounds .	49,957	56,574	58,113	69,216
	{ Yards .	233,227	255,628	270,724	311,600
T-cloth, Domestic and Sheetings	{ Pounds .	12,873	17,750	13,924	11,398
	{ Yards .	64,672	82,792	66,848	53,722
Tent Cloth	{ Pounds .	11,983	1,541	1,479	1,099
	{ Yards .	21,026	2,745	2,924	2,499
Khadi, Dungi or Khaddar	{ Pounds .	..	..	..	..
	{ Yards .	..	..	..	..
Other Sorts	{ Pounds .	4,974	4,768	3,448	8,659
	{ Yards .	12,669	14,827	12,313	26,633
Total	{ Pounds .	112,014	120,744	112,714	133,372
	{ Yards .	471,814	518,436	504,339	585,926
Coloured Piece-goods	{ Pounds .	61,048	71,289	69,395	70,853
	{ Yards .	286,090	344,856	332,168	336,001
Grey and Coloured Goods other than Piece-goods	{ Pounds .	3,113	2,358	2,290	1,908
	{ Dozens .	616	486	503	420
Hosiery	{ Pounds .	127	124	127	127
	{ Dozens .	98	103	94	91
Miscellaneous	{ Pounds .	1,023	839	962	1,057
Cotton Goods mixed with Silk or Wool.	{ Pounds .	113	58	113	64
TOTAL, BOMBAY ISLAND	{ Pounds .	177,433	195,412	185,601	207,381
	{ Yards .	757,904	863,292	836,507	921,927
	{ Dozens .	714	588	597	511

No. II—contd.

1922-23	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
8,315	9,050	9,847	10,408	11,795	12,550	5,028
25,289	24,318	25,734	26,795	30,275	31,155	13,521
20,434	19,446	21,116	21,855	28,058	31,597	15,243
102,025	97,624	110,997	115,412	150,181	168,795	86,509
7,362	7,771	11,312	9,018	12,229	14,909	9,854
31,523	33,294	49,907	38,408	49,820	59,248	37,536
332	273	447	223	75	389	233
2,186	1,560	2,448	1,449	352	2,395	1,802
306	65	33	238	..	..	..
1,674	280	165	1,042	..	..	..
63,537	61,959	71,845	68,865	84,778	82,776	36,856
289,340	278,940	326,482	306,776	373,987	378,058	167,970
9,743	8,358	9,692	8,019	12,477	11,073	4,985
48,427	39,457	45,034	36,195	48,613	30,401	17,730
804	561	931	979	1,155	653	827
1,024	1,488	2,261	2,205	2,339	1,381	1,772
..	..	10,804	9,724	18,544	18,343	6,476
..	..	30,574	27,514	50,846	50,709	19,329
14,860	15,189	2,795	2,667	3,184	3,273	2,212
44,930	45,897	11,549	10,302	11,264	13,050	8,458
125,693	122,672	138,825	131,996	172,294	175,564	81,714
547,318	522,859	605,145	566,097	717,676	744,137	354,027
66,771	63,723	78,162	63,430	86,482	82,770	37,023
322,966	333,024	380,883	305,744	417,345	387,333	182,776
2,171	1,585	1,851	2,409	2,542	2,681	1,562
437	349	429	721	657	714	414
110	96	91	76	68	121	7
96	81	83	72	66	103	50
1,299	990	1,348	1,281	2,362	2,711	1,001
99	139	115	468	1,371	2,091	701
196,145	194,206	220,392	199,659	265,120	265,937	122,078
870,285	855,833	986,028	871,841	1,135,021	1,131,521	537,403
584	431	512	793	723	817	644

Of the total output, Bombay Island was responsible for 58 per cent in 1907-08 but the mills elsewhere advanced more rapidly than Bombay and the percentage had fallen to 50 by 1914-15 and this ratio was fairly steadily maintained up to 1927-28 when the actual ratio was 49 per cent. In the following year it fell to 28 per cent owing to prolonged labour troubles. In 1927-28, the shares of the various production areas were:—

Production area.	Percentage of total yardage produced.
Bombay Island	49
Ahmedabad	22
Bombay Presidency (other centres)	7
Delhi and Ajmer-Merwara	2
Central Provinces and Berar	3
Indian States	9
United Provinces	4
Bengal	1
Madras	3
Others . . . . .	...
TOTAL	100

Each of the three main groups, grey dhutis, grey shirtings and coloured goods, accounts roughly for one-fourth of the annual output. This proportion has been fairly steadily maintained since 1912-13, prior to which the output of coloured goods was small but growing. The first of these classes is made almost entirely for the Calcutta market. The Tariff Board in paragraph 47 of their report commented on the lack of attention paid to this line of goods by the Bombay mills. Bombay city has since increased its output by more than 50 per cent and its share in the total Indian production in 1927-28 was 27 per cent as against 22 when the Board reported and 29 per cent in 1907-08. The Board at the same time recognised the advantage which the small mill in Ahmedabad and elsewhere has in respect of meeting the individual wishes of customers. They possibly did not recognise that this advantage is of much greater importance in the dhuti trade, in which assortment affects saleability to a large extent, than in the shirting trade of which the Bombay City mills have a much bigger share. The Ahmedabad shares in the dhuti output were 41, 38 and 45 per cent respectively in the last three years.

In the output of grey shirtings the Bombay share has fallen from 77 per cent. in 1907-08 to 61 per cent in 1927-28 and in coloured goods from 80 to 56 per cent in the same period. Their most serious set-back has been in the production of sheetings and other heavy plain cloths, a feature which will be discussed in more detail at a later stage. The Ahmedabad share in the output of shirtings rose from 15 per cent in 1926-27 and 18 per cent in

1927-28 to 32 per cent in 1928-29. Further details are given in the following table:—

TABLE III.—*Production of longcloth and shirtings in millions of yards.*

	1926-27.	1927-28.	1928-29.
Bombay City	374	378	168
Ahmedabad	87	109	152
Bombay Presidency (other centres)	19	23	24
Indian States	54	65	84
Central Provinces and Berar	10	7	6
Ajmer-Merwara	2	2	3
United Provinces	11	9	10
Bengal	9	7	10
Delhi	1	5	7
Punjab	2	3	2
Madras	12	13	11

It may be remarked at this stage that with the exception of Mysore and Cochin practically all the mills in Indian States lies within the Bombay distribution area (see paragraph 9 below), and these mills and those in Ahmedabad have evidently profited most by the stoppages in Bombay.

In the absence of detailed figures it is impossible to analyse the output of bleached goods, but a few words are necessary in this connection. In paragraph 47 (page 107) of their Report the Tariff Board discussed such evidence as they were able to obtain regarding the output of bleached goods. I venture to suggest that they were led to entirely erroneous conclusions owing to a misapprehension as to the method of classification adopted in the returns of production. The discrepancy between the figure of 4·3 milyards deduced from the Cotton Excise returns and the estimate of 67·6 milyards based on figures collected by the Millowners Association is too glaring to be attributed to mere inaccuracy. The facts are that in the returns of production which were used by the Cotton Excise authorities, as well as in the import statistics, white goods with coloured checks, spots and stripes are classified as "coloured" and not as bleached. On the other hand in the process of weaving, grey yarn is used for the body of the cloth and dyed yarn fast to bleach for the coloured pattern, and the whole cloth is finally bleached after weaving. The Millowners' estimate must have included large quantities of cloth of this nature which would be returned as "coloured striped saris and susis", of which the total output in Bombay in 1927-28 was 141 milyards and in 1927-28 124 milyards. The Bombay estimate also probably included a certain quantity of striped white drills and jeans. The total output of coloured drills and jeans in Bombay Island in 1926-27 was 84 milyards and it is unlikely that the whole of this consisted of cloth dyed in the piece. It is therefore more than likely that the official figures for Bombay Island were correct and that practically the whole of the 4·3 milyards consisted of dhutis. Even in Ahmedabad, where bleaching is cheaper than in Bombay, the figures quoted by the Tariff Board will bear a similar interpretation and it is, I

TABLE IV.—*Production of coloured piece-goods in the Bombay presidency during each of the years 1926-27, 1927-28 and 1928-29 in millions of yards.*

Coloured Piece-goods	1926-1927.				1927-1928.				1928-1929			
	Bombay Island	Ahmedabad District.	Other Districts.	Total Bombay Presidency.	Bombay Island	Ahmedabad District.	Other Districts	Total Bombay Presidency	Bombay Island	Ahmedabad District	Other Districts	Total Bombay Presidency
Chadars	19	.	.	19	24	.	.	24	13	.	.	13
Dhoties and Lungis	18	2	2	22	18	3	3	24	10	8	4	17
Drills and Jeans	84	.	2	86	69	.	3	62	29	.	5	34
Greys, Dyed	38	1	3	42	50	2	4	56	31	1	4	36
Coloured and striped saris and susis	141	118	28	287	124	121	36	281	68	114	31	198
Cotton Tweeds and Checks . .	92	4	11	107	76	1	13	90	32	2	14	48
Other sorts	25	8	5	38	36	3	3	42	15	2	2	19
TOTAL	417	128	51	596	387	130	62	579	183	122	60	365

consider, justifiable to assume that among the goods classed in the production returns as "grey and bleached" not more than about one per cent. is bleached. In discussing competition in grey goods I propose to neglect this small quantity. In the absence of accurate details it will be simpler than making arbitrary modifications in the figures, and the resulting error will be insignificant.

As regards coloured goods, it has already been explained that three years' figures for the Bombay Presidency only are available. These are reproduced in Table IV. About half the total output consists of "striped saris and susis" of which Bombay was formerly responsible for 60 per cent. and Ahmedabad for 25 per cent. In 1927-28 the percentage in each was about 40 per cent. The United Provinces and Madras Mills produce about half the dyed greys, mainly in the form of khaki drills and twills. Of the remaining classes Bombay Island normally produces about 80 per cent.

Distribution areas.

9. No-one who studies the statistics of the piece-goods trade for a period of years can fail to be struck by the amazing conservatism of the Indian demand. In Europe, where the clothing of to-day may be the laughing-stock of five years hence, the vagaries of fashion exercise an important influence on the course of trade. In India the capricious breeze of fashion blows but lightly and rarely does more than ruffle the surface of trade, leaving its depths unmoved. Both to the statistical investigator and to the framer of tariffs this immutability of demand is a most fortunate circumstance. It enables the former to assign with reasonable certainty economic causes to any variations he may detect and it enables the latter to predict with some approach to confidence the effect of any measures he may propose. While the fashions change little from year to year they vary, on the other hand, to a remarkable degree from place to place. Thus, while the total imports of *dhutis* and other bordered grey and white goods has varied but little in the past 30 years, throughout that period between 85 and 95 per cent. of the total has been shipped to the Calcutta market. Again, the average price of grey shirtings in Madras per linear yard has for thirty years been 20 per cent. higher than in Bengal, and this is merely a reflection of the unvarying predilection in Madras for wider cloths than in Calcutta. A demand for a particular type of cloth may grow up to flourish for a while and then disappear, but this is the exception rather than the rule, and in its broad outlines the demand for cloth and the distribution of that demand over the different parts of India remains very much what it was thirty years ago.

The internal distribution of cloth in India is a matter regarding which hardly any direct information is available. The mills are unable to give more than a very general idea as to where their output is sold. The latest railborne statistics are those of 1920-21 and in some of the earlier years there is obvious inaccuracy in the

differentiation between foreign and Indian cloth. The figures are given in gross weights without any distinction of quality and only a rough approximation to the yardage transported is possible. Nevertheless the country is so vast that it seems desirable to attempt some sort of estimate, even though it be based largely on inductive reasoning.

At the outset one is faced with almost complete lack of evidence as to output of the handloom industry. An attempt was made in Appendix IV of the Tariff Board's Report to frame an estimate of handloom production of cloth. It was based on the nett amount of mill-made and imported yarn available for consumption after allowing for yarn woven into cloth in the Indian Mills. It took no account of cloth woven from home spun yarn, though no doubt, the amount of this decreased rapidly in the early years of the century. Nor did it give any idea of the parts of India in which the handloom industry flourished most. It is probable, however, that it has always been more flourishing in the cotton-growing areas than elsewhere and particularly in Madras.

The annual statements of sea-borne trade show under each trade-head the quantities imported through ports in each of the five Maritime Provinces, Sind being regarded as a separate Province for this purpose. In each Province almost the whole of the import trade in piece-goods passes through the principal port and except for the development of the port of Karachi the facilities for importing and despatching goods to up-country destinations remain very much what they were 30 years ago. In general terms it can be inferred from such rail-borne statistics as are available that, so far as imported goods are concerned, Bengal, Bihar and Orissa and Assam are served from Calcutta, Bombay Presidency, the Central Provinces, Hyderabad, Rajputana and the Central Indian States from Bombay, Sind and Baluchistan from Karachi, the Madras Presidency and Mysore from Madras, and Burma from Rangoon. The chief areas served from more than one of the great ports are the United Provinces and the Punjab. Certain destinations outside India are also served by land transport from Indian ports, notably the Shan States and China from Rangoon, Tibet from Calcutta, Nepal from Bombay and Calcutta and Afghanistan and Persia from Karachi. It is also possible to deduce from the rail-borne figures that the United Provinces up to ten years ago was served, in respect of imported cloth, from Calcutta and Bombay roughly in the proportion of $\frac{5}{8}$ to $\frac{1}{8}$, and the Punjab from Calcutta, Bombay and Karachi in the proportion of $\frac{1}{5}$, $\frac{2}{5}$, $\frac{2}{5}$. It is unlikely that there was any great change in these proportions before 1928-29, when special causes operated which are referred to later. I give below the distribution areas with the populations (in millions) of each according to the 1921 census though, in the case of Karachi, the populations of the transferrable areas served cannot be quoted. Except where they are separately specified the various Indian States are included with the Provinces they adjoin.

TABLE V.—*Import Trade of provinces.*

Percentages of import trade passing through the various maritime provinces.

	GREY.					WHITE.					COLOURED.					TOTAL.				
	Bengal.	Bombay.	Sind.	Madras.	Burma.	Bengal.	Bombay.	Sind.	Madras.	Burma.	Bengal.	Bombay.	Sind.	Madras.	Burma.	Bengal.	Bombay.	Sind.	Madras.	Burma.
Average 1899-00 to 1908-04 . . .	73	16	4	6	1	35	39	18	8	4	29	39	14	9	9	56	26	6	6	4
„ 1904-05 „ 1908-09 . . .	73	15	4	7	1	32	33	22	4	9	24	38	20	8	10	52	25	12	6	5
„ 1909-10 „ 1913-14 . . .	75	15	3	6	1	32	32	25	5	6	24	39	19	7	11	52	24	13	6	5
„ 1914-15 „ 1918-19 . . .	73	14	3	4	1	34	25	31	5	5	22	43	18	7	10	53	24	14	5	4
„ 1919-20 „ 1923-24 . . .	75	17	2	4	2	35	21	32	5	7	25	36	22	5	12	53	23	15	4	5
1924-25 . . .	75	15	5	3	2	34	21	35	4	6	21	35	26	4	14	50	22	18	4	6
1925-26 . . .	74	17	4	3	2	33	22	33	4	8	24	39	28	4	15	49	24	16	3	7
1926-27 . . .	76	13	4	5	2	35	17	36	5	7	27	30	23	3	17	50	19	19	5	7
1927-28 . . .	75	16	3	3	2	34	20	34	5	7	27	35	20	3	15	50	24	16	3	7
1928-29 . . .	72	18	4	4	2	28	24	40	6	7	22	40	22	3	13	45	26	16	4	6

Distribution areas with populations.

From Calcutta	Bombay	Karachi	Madras	Rangoon.
Assam 8	Bombay 26	Punjab 2/5 10	Madras 47	Burma 13
Bengal 48	C P. 16		Mysore 6	—
B. & O 38	C I & Raj-putana. 19	N. W F. P. 5	—	13
U. P (5/6) 40		Sind and Baluchistan. 4	53	
Punjab (1/6) 5	U P (1/6) 6	Kashmir 3		
—	Punjab (2/5) 10	—		
139	Hyderabad 13	22		
	90			

The percentage of population served from each port is thus:—

Calcutta	44
Bombay	28
Karachi	7
Madras	17
Rangoon	4
	100

These figures may instructively be compared with those in Table V. If it be remembered that the Madras distribution area includes the least wealthy population and that Karachi serves a considerable transfrontier population, the correspondence between the two sets of figures is striking. Even more remarkable is the persistency of the distribution of the trade over so long a period as thirty years. The steady transfer of a part of the trade, notably in white goods, from Bombay to Sind is evidence rather of the development of the port of Karachi than of any change in the ultimate destination of the goods. The really important recent change is the drop in the Bengal share during 1928-29. This might have been regarded as a normal and ephemeral fluctuation were it not for the absence of any comparable fluctuation in the earlier years. In the face of this persistency in the ratios the importance of the 1928-29 figures cannot be overlooked. The change is most marked in respect of white goods for which the principal market is in Upper India. It is undoubtedly to be attributed to the voluntary restrictions on forward business adopted by Calcutta importers in 1928 which have resulted in the transfer of a large proportion of the Punjab and United Provinces trade to Bombay and Karachi. There is every reason to believe that the Calcutta market will have great difficulty in recovering the ground it has lost in this way.

It has occasionally been suggested that *ad valorem* assessments are more rigorous in Calcutta than in the other ports. There is probably little if any truth in this suggestion but the mere existence of the idea might serve to divert trade to some extent. It is unlikely, however, that such diversion has been considerable since there is no evidence of it in the years immediately preceding 1928-29.

To estimate the distribution of Indian-made piece-goods is a more difficult task. The rail-borne figures are given in hundred-weights and as already indicated are neither accurate in their distinction between Indian and foreign goods nor up-to-date. A certain amount of information, however, is to be gleaned by indirect inference. The produce of the mills outside Bombay and Ahmedabad is sold almost entirely, if not in the immediate vicinity of the mill, at any rate in that one of the five distribution areas, referred to above, in which the mill is situated, and the only important question is really to ascertain the distribution of Bombay and Ahmedabad cloth. The year 1928-29 was an abnormal one owing to the strikes in Bombay and to the restriction on imports into Calcutta which is referred to above. I propose therefore to consider the figures for 1927-28 as representing fairly normal conditions in respect of both imports and production.

It will be seen later on that, even in the days when Indian production was negligible, 90 per cent. of the grey dhutis imported went to Calcutta. It is common knowledge that Calcutta is the principal market for Bombay and Ahmedabad dhutis, and the Calcutta share of the import trade has varied so little in 30 years that it is reasonable to suppose that 90 per cent. of the total Indian mill output of dhutis also goes to the Calcutta distribution area. The output in 1927-28 was 616 milyards of which 67 were produced in the Calcutta distribution area, 8 in the Madras area, one in the Karachi area and 540 in the Bombay area. The distribution should therefore be as follows:—

TABLE VI.—*Distribution of grey dhutis of Indian manufacture*

Distribution area.	Produced within the area	Exported out of India.	Exported to other areas.	Imported from other areas.	Nett Consumption of Indian goods.
Calcutta . . .	67	.	..	487	554
Bombay . . .	540	4	487	..	49
Karachi . . .	1	..	.	..	1
Madras . . .	8	..	..	..	8
Rangoon . . .	..	.	..	.
	616	4	487	487	612

The following table shows the distribution of imported greys (other than dhutis, etc.) in certain years and the volume of imports and local production in the same years:—

TABLE VII.—Percentage of imports of Grey goods (other than dhutis).

	1899-00.	1907-08.	1913-14.	1923-24.	1927-28.
Bengal	60	64	58	39	44
Bombay	26	22	24	44	38
Sind	8	6	5	4	7
Madras	5	7	11	10	6
Burma	4	1	2	3	5
	Milyards.	Milyards.	Milyards.	Milyards.	Milyards.
Total imports	762	753	728	270	348
Total production	100*	442	588	798	1,059
TOTAL	862	1,195	1,316	1,068	1,407

*Estimated.

One inference to be drawn from the above figures is that in the early days of Indian mill production most of the output was marketed locally, but the growth of dhuti production meant the establishment of connections in the Calcutta distribution area which led to increased business in that area in other lines. It is not unreasonable to suppose that the Calcutta distribution area still consumes 60 per cent. of the total quantity available and the Bombay area 25 per cent. Exports in 1927-28 amounted to 16 and re-exports to 18 milyards leaving a nett balance of 1,383 of which 830 (153 imported *plus* 677 Indian) must be assigned to the Calcutta area and 346 (132 imported *plus* 214 Indian) to the Bombay area. In 1927-28, 116 milyards left Bombay for Karachi by sea and 4 for Rangoon. Some 5 milyards were produced in that part of the Punjab served by Karachi and the remaining 27 may be assigned to Madras including 18 milyards produced within the Madras area. The following table gives a conspectus of the results of this estimate for the year 1927-28.

TABLE VIII.—Grey goods, other than dhutis, of Indian manufacture.

Distribution area	Production within the area.	Exported out of India by sea.	Exported to other areas.	Imported from other areas.	Nett Consumption of Indian goods.
Calcutta	57	..	..	620	677
Bombay	979	16	749	..	214
Karachi	5	..	..	116	121*
Madras	18	..	..	9	27
Rangoon . . . . .	..	..	..	4	4
	1,059	16	749	749	1,043

*Includes re-export by land.

As the Calcutta area is the principal market for grey goods it is natural that its share in the coloured goods trade should be relatively smaller. One of the chief reasons for the difference is that whereas in the Bengal area a large proportion of the women wear bordered grey saris, elsewhere the coloured sari is the general rule. The high figure for Bengal (*vide* table IV in the period 1899-00 to 1903-04) is probably a reflection of the effects of plague and famine in the Bombay and Sind distribution areas, and it should be fairly accurate to assign to the Calcutta area 25 per cent. of the total consumption of mill-made coloured goods. That the proportion is much lower than in the case of grey goods is confirmed by the fact that, in 1927-28, mills in the Bengal area produced only 10 milyards of coloured cloth as against 117 milyards of grey.

The nett quantity of coloured goods available for consumption in 1927-28 was as follows:—

Imports	. . . . .	507
Production	. . . . .	681
Re-exports	. . . . .	13
Exports	. . . . .	107
		—
	NETT TOTAL	1,068
		—

I have not included in the export figure 42 milyards exported from Madras. The greater part of this is hand-woven and any balance may be regarded as set off against the small quantity of hand-woven goods exported from Bombay. Exports from the other ports are negligible and of the 13 milyards re-exported by sea 11 go from Bombay and 2 from Karachi.

The Bengal distribution area may therefore be assumed to have taken 266 milyards of which 10 were produced in the area, 111 imported and 145 bought from the Bombay Presidency mills. From Bombay 32 milyards of Indian cloth were shipped to Karachi by sea and 16 to Burma. Allowing for exports out of India this leaves 381 to be accounted for.

The combined Bombay and Sind share in the total consumption should be about 56 per cent. according to Table IV or 597 milyards of which 202 were imported into Bombay and 112 into Karachi. This gives 283 as the consumption of Indian coloured goods in the Bombay and Karachi areas leaving 98 milyards for Madras of which 33 are produced within the distribution area. As in the case of grey goods a part of the quantity assigned to the Bombay area will go to parts of the Punjab which are served in respect of foreign goods from Karachi.

The results of this estimate are summarised in the following table:—

TABLE IX.—*Coloured goods of Indian manufacture.*

Distribution area.	Production within the area.	Exported out of India by Sea.	Exported to other areas.	Imported from other areas.	Nett Consumption of Indian goods.
Calcutta . .	10	..	..	145	155
Bombay . .	632	107	258	..	267
Karachi . .	6	..	..	32	38
Madras . .	33	..	..	65	98
Rangoon . .	..	..	..	16	16
	681	107	258	258	574

It may be of interest to combine these figures and give an estimate of the distribution of all piece-goods produced in the Indian Mills.

TABLE X.—*Distribution of all Piece-goods of Indian manufacture.*

Distribution area	Production within the area.	Exported out of India by sea.	Exported to other areas.	Imported from other areas.	Nett consumption.
Calcutta . .	134	..	..	1,252	1,386
Bombay . .	2,151	127	1,494	..	530
Karachi . .	12	..	..	148	160
Madras . .	59	..	..	74	133
Rangoon . .	..	..	..	20	20
	2,356	127	1,494	1,494	2,229

Nature of Output.

10. After what has been said regarding the use of trade names it is clear that caution must be exercised in making comparisons between figures for output and import of goods classified under similar descriptions. In particular the kind of yarn available for weaving purposes limits the quality of the goods that can be manufactured in any particular class. The Tariff Board went into this question very carefully and their conclusions were that little if any cotton grown in India was suitable for spinning twist finer than 36s or weft yarn finer than 40s, and that about 380,000 bales or 19 per cent. of the Indian crop was suitable for spinning twist from 30s to 36s and weft from 34s to 40s. Of this, however, they estimated that a considerable proportion was exported from Madras. There has been a slight reduction in exports from Madras, but the quantity available for spinning warp 30s to 36s, and corresponding weft yarns can hardly be more than 10 per cent. of the total, say 200,000 bales. To estimate the capacity of the Indian mills for spinning medium and fine cloths it is necessary also to take into account imports of raw cotton of longer staple than the ordinary Indian varieties, as well as imports of fine yarns.

There has been no noticeable increase in the imports of the finer yarns since the Tariff Board reported as the following table will show:—

TABLE XI.—Imports of yarns above 30s in millions of pounds.

	GREY			WHITE.*			COLOURED.		
	31-40s.	Above 40s.	Two-folds.	31-40s.	Above 40s.	Two-folds.	31-40s.	Above 40s.	Two-folds.
1923-24	13	7	3	..	..	..	7	1	1
1924-25	21	7	5	..	..	..	6	..	1
1925-26	22	6	5	..	..	..	5	1	1
1926-27	21	7	7	..	..	..	3	1	1
1927-28	22	6	5	1	1	2	4	1	1
1928-29	16	8	5	1	1	3	2	..	1

* Included with grey prior to 1927-28.

The Tariff Board mentioned a large import of American cotton which occurred for the first time in 1926-27 when some 20,000 tons were imported. In the following year imports amounted to 50,000 tons but fell to about 12,000 in 1928-29. Most of this was no doubt used, as the Board surmised, for mixing with Indian cottons for the spinning of course yarns. Imports of raw cotton from Kenya have been as follows:—

1923-24	Tons.	10,000
1924-25	16,000	
1925-26	16,000	
1926-27	13,000	
1927-28	13,000	
1928-29	15,000	

but although the figures for re-exports in the trade returns are small it is possible that some of this was re-exported and registered mistakenly as Indian in the export returns.

In the returns of production there is, however, some evidence of progress of which the following table gives an idea. I have given figures from 1920-21 in which year the output of fine yarns was lower than it had been for 15 years:—

TABLE XII.—Output of fine yarn in millions of pounds.

	ALL INDIAN MILLS.		BOMBAY ISLAND.	
	31s-40s.	Above 40s.	31s-40s.	Above 40s.
1920-21	15	2	5	1
1921-22	17	2	6	1
1922-23	16	2	6	1
1923-24	20	3	7	1
1924-25	19	6	8	3
1925-26	20	6	6	3
1926-27	28	12	9	4
1927-28	34	11	12	5
1928-29	37	10	9	3

TABLE XIII.—Statement showing the production of yarn in cotton Mills situated in the city and Island of Bombay.
(Quantities are in pounds.)

Years, Particulars	Counts.									
	1—10	11—20.	21—24.	25—30.	32—36.	37—40.	41—44.	45—50.	51 & above.	Total.
1923—										
Warp	1,867,392	39,153,996	84,923,423	3,443,107	308,710	595,731	213,021	87,745	77,288	82,322,322(a)
Weft	11,488,610	22,144,935	15,224,796	9,170,733	2,245,529	775,905	164,442	98,921	88,494	62,666,701(b)
Reeling	33,631,197	45,499,840	4,921,436	881,604	411,956	422,372	22,679	.	.	88,604,660(c)
1924—										
Warp	1,840,165	34,463,205	35,617,529	3,181,185	406,594	337,817	481,268	209,607	21,056	78,643,204(d)
Weft	11,598,752	22,209,388	13,629,264	8,997,374	2,209,207	990,309	438,103	24,460	223,111	61,443,490(e)
Reeling	34,026,751	42,575,910	5,193,642	684,777	392,210	595,987	612,897	91,007	32,456	87,535,042(f)
1925—										
Warp	3,895,646	32,766,188	37,908,292	2,671,501	132,343	121,754	491,798	146,057	29,116	80,667,393(g)
Weft	10,884,491	22,606,717	13,120,298	10,234,156	2,208,850	976,840	350,474	37,682	252,929	62,291,082(h)
Reeling	38,278,845	39,402,928	3,790,690	276,884	231,710	258,490	471,476	31,823	59,410	88,766,087(i)
1926—										
Warp	3,364,981	50,372,321	45,904,518	4,398,178	260,957	381,535	955,533	233,912	104,715	108,251,887(j)
Weft	13,977,694	32,422,703	21,419,490	11,423,957	3,495,646	1,868,991	195,632	77,093	848,199	86,478,470(k)
Reeling	51,820,614	40,002,896	4,182,341	478,523	476,725	483,894	794,062	80,420	156,364	103,652,742(l)
1927—										
Warp	2,641,663	56,207,693	49,900,754	4,907,164	371,321	1,687,748	836,683	256,799	139,431	113,982,324(m)
Weft	21,988,169	35,189,861	19,399,104	13,645,223	3,303,051	2,508,748	345,050	111,537	1,012,901	98,739,062(n)
Reeling	39,731,182	35,777,571	6,640,834	954,919	495,243	705,302	1,432,652	103,553	266,185	90,690,731(o)
1928—										
Warp	1,590,948	24,622,096	22,070,234	3,131,993	278,932	1,679,484	260,438	186,544	100,511	55,280,263(p)
Weft	8,575,254	14,354,696	9,468,059	7,196,232	2,241,636	2,212,982	263,170	42,063	458,074	45,598,795(q)
Reeling	20,236,902	15,346,060	2,064,250	254,189	313,082	264,966	753,203	65,669	252,374	41,390,840(r)

NOTE.—
(a) Includes 2,276,909 lbs. for which details are not available.
(b) " 1,207,876 lbs. " " " " " "
(c) " 2,513,576 lbs. " " " " " "
(d) " 2,083,478 lbs. " " " " " "
(e) " 1,058,522 lbs. " " " " " "
(f) " 3,329,605 lbs. " " " " " "
(g) " 2,504,698 lbs. " " " " " "
(h) " 1,618,655 lbs. " " " " " "
(i) " 5,963,800 lbs. " " " " " "

NOTE.—
(j) Includes 2,275,237 lbs. for which details are not available.
(k) " 1,249,065 lbs. " " " " " "
(l) " 5,227,578 lbs. " " " " " "
(m) " 2,033,060 lbs. " " " " " "
(n) " 1,285,418 lbs. " " " " " "
(o) " 4,533,840 lbs. " " " " " "
(p) " 1,309,078 lbs. " " " " " "
(q) " 696,629 lbs. " " " " " "
(r) " 1,936,145 lbs. " " " " " "

Though but little of the finer single yarns is exported there is a regular export trade in two-folds amounting to about 8 million lbs. annually. Two-folds are unfortunately not shown separately in the production statistics and, if these are entered in terms of the count of the separate threads in each, the quantity of fine yarn available for weaving must be reduced to that extent. Further, it cannot be assumed that all the yarn spun in these counts is woven in the mills. The statement in Table XIII was supplied to me by the Bombay Millowners Association, and from this it appears that a considerable part of their output of the finer yarns, particularly those of over 40s, are sold away from the mills and do not enter the weaving sheds, though it is possible that some part may be sold to other mills in Bombay and elsewhere.

It will be instructive to compare the Bombay Millowners, figures of yarns entering the weaving sheds with the output of the various kinds of cloth. In the following table the output of yarn (excluding reeled yarn) in each calendar year is compared with the output of cloth in the financial year (April-March).

TABLE XIV.—*Output of yarn and cloth in millions of pounds.*

	Yarn.		Cloth
1923 . . .	145	1923-24 . . .	191
1924 . . .	140	1924-25 . . .	217
1925 . . .	143	1925-26 . . .	195
1926 . . .	194	1926-27 . . .	259
1927 . . .	218	1927-28 . . .	258
1928 . . .	101	1928-29 . . .	119

Analysing the figures in more detail it appears that in 1927, 116 million pounds of mill yarn 20s and below were spun which, allowing for weighting, should have produced about 140 million pounds of cloth. The output of the following classes of cloth, chadars, drills and jeans, T-cloths, etc., Khadi, etc., Tent-cloth and Tweeds and Checks, practically all of which must have been woven from this class of yarn was only 89 million pounds. Allowing for weighting this must have required at most 75 million pounds of yarn leaving 41 million pounds of yarns below 21s for use in the production of other classes. The total output of cloth excluding the definitely coarse classes mentioned above was 169 million pounds of which 114 consisted of grey dhutis and shirtings and 23 of coloured dhutis, saria and susis (including striped shirtings). If we credit the Bombay mills with using half the yarn imported into Bombay (and this probably does an injustice to Ahmedabad) the yarn employed in weaving the finer classes of cloth in 1927-28 was as follows:—

	Million pounds.
Below 21s	41
21s—24s	69
25s—30s	19
31s—40s	14
above 40s	4

Thus, at the outside, 25 per cent. of the dhutis and shirtings woven in Bombay are from counts of 25s or over, 12 per cent. from 31s and over and 3 per cent. from 41s and over.

The Ahmedabad Millowners Association have also supplied me with particulars of the yarn consumed in the weaving sheds of 32 mills. Unfortunately they were unable to give their results in the same detail as for Bombay. The following figures give percentages of yarns above 18s:—

TABLE XV.—*Yarns above 18s woven in certain Ahmedabad Mills in millions of pounds.*

—	1924	1925	1926	1927	1928	1929
						(7 months)
19s to 32s . . .	97·8	97·5	92·8	91·9	90·1	86·4
33s to 45s . . .	1·8	2·3	7·0	6·2	6·5	10·3
Above 45s . . .	·4	·4	·2	1·8	2·6	2·8

The table takes no account of yarns 18s and below for which figures were not furnished by all these mills, but it does not appear that the proportion of fine yarn used is very different from that in Bombay.

Before leaving this subject I would suggest that if the progress of the mills in the weaving of cloth from the finer counts of yarn is to be watched in the future, some further improvements might be made in respect of the statistics of yarn. Returns similar to Table XIII would be very useful as they would show, under each of the various groups of counts, yarn classified in three heads "warp", "weft" and "reeling" but the return, to be complete, should also include information regarding purchases of yarn used for weaving. Returns of this nature from all mills showing the counts of all yarn entering their weaving sheds would give an immediate idea of progress in the manufacture of finer cloths. It would be essential, however, that such returns should distinguish between warp yarn and weft yarn. A similar distinction is also desirable in the import returns and would, I believe, be much more informative than the present distinction between grey, white and coloured yarns. The returns of yarns woven in the mills which I propose would, of course, be supplementary to the present returns of output of yarn but both, I suggest, should have separate heads for two-fold yarns which are already separately specified in the trade returns.

CHAPTER IV.

The Extent of External Competition.

General.

11. In Table XVI will be found figures for the total import of piece-goods from the various sources and for the total production of cloth in the Indian cotton-mills. The import trade remained at a fairly constant level for the first twelve years of the century but Indian mill production was making remarkable strides during this period and even after allowing for the ordinary rise in demand from a growing population it must be assumed that a good deal of advance on both sides was at the expense of the hand-loom industry. The years 1912-13 and 1913-14 exhibit so patently the evidences of a cyclical trade-boom that some falling-off was to be expected thereafter but the intervention of the war forestalled the natural reaction from the boom and caused so heavy a drop in imports that the mills were able to resume their rapid progress until the difficulty of expanding plant or renewing existing plant began to be seriously felt. With the conclusion of the war and the removal of this difficulty Indian production again began to move forwards, experiencing only a slight set-back when the exchange value of the rupee rose to unprecedented heights in 1920-21 and a revival of the import-trade began. In the following year exchange had dropped, imports were again reduced and Indian mill production again increased. While the Bombay Millowners have insistently attributed a large part of their troubles to the fixation of the rupee at 1s. 6d. it is significant that whereas their gross output remained stationary during the three years 1921-22 to 1923-24 in which the rupee was pursuing a fluctuating but upward course, their output again began to rise steadily as soon as exchange was settled in the neighbourhood of 1s. 6d. In fact while the output of the Bombay mills rose from 856 milyards in 1923-24 to 1135 in 1926-27 and fell, owing to labour troubles to 1131 and 537 in the next two years, the output of other Indian mills rose from 847 milyards in 1923-24 to no less than 1356 milyards in 1928-29, an increase of 60 per cent. in 5 years. Meanwhile, after a substantial recovery in imports during the period when exchange was slowly rising, labour troubles in the United Kingdom and the high price of American cotton caused a set-back in 1925-26 and recovery has been slow.

The most obvious features of Table XVI so far as concerns the origin of imported goods are the predominance of imports from the United Kingdom before the war, their subsequent decline and the rapid growth of imports from Japan. It will, however, be convenient first to refer briefly to the other countries which participate in the trade. The Netherlands with large possessions in the East have always been suppliers of cloth to Eastern markets but, except for a certain quantity of bleached goods, their contribution has consisted mainly of coloured cloths of a type worn by the Malays and also popular among certain classes on the eastern sea-

TABLE XVI.—*Gross Imports by Countries and Indian Production in millions of yards.*

	United Kingdom.	Holland.	Italy.	United States of America.	Switzerland.	Japan.	China.	Others.	Total Imports.	Mill Production in India.	TOTAL
1899-1900 .	2,166	7	3	4	..	..	..	11	2,191	102	2,193
1900-1901 .	1,972	9	3	9	..	..	..	10	2,003	..	.
1901-1902 .	2,154	12	4	7	..	..	..	13	2,190	..	.
1902-1903 .	2,071	12	3	8	..	..	..	13	2,107	..	.
1903-1904 .	1,997	12	4	6	..	..	.	14	2,033	..	.
1904-1905 .	2,251	13	4	4	..	..	..	16	2,288	159	2,442
1905-1906 .	2,415	16	5	10	..	..	..	17	2,463	..	..
1906-1907 .	2,276	16	5	8	..	..	..	13	2,316	..	.
1907-1908 .	2,487	16	7	4	..	..	..	13	2,532	808	3,340
1908-1909 .	1,941	22	5	9	..	..	..	17	1,993	824	2,817
1909-1910 .	2,141	21	5	8	..	..	..	18	2,193	964	3,157
1910-1911 .	2,252	22	8	8	6	..	..	12	2,308	1,047	3,355
1911-1912 .	2,379	23	7	9	4	1	..	15	2,438	1,136	3,574
1912-1913 .	2,942	26	12	16	5	6	..	16	3,023	1,220	4,243
1913-1914 .	3,104	25	23	10	6	9	..	20	3,197	1,164	4,361
1914-1915 .	2,378	21	10	12	3	16	..	6	2,446	1,135	3,581
1915-1916 .	2,049	21	13	17	4	39	..	5	2,148	1,442	3,590
1916-1917 .	1,786	14	14	11	3	100	1	5	1,934	1,578	3,512
1917-1918 .	1,430	6	7	13	1	95	1	3	1,556	1,614	3,170
1918-1919 .	867	1	1	11	1	238	..	3	1,122	1,450	2,572
1919-1920 .	976	8	1	10	2	76	..	8	1,081	1,640	2,641
1920-1921 .	1,292	13	10	13	4	170	1	7	1,510	1,581	3,091
1921-1922 .	955	12	2	23	1	90	1	6	1,090	1,734	2,824
1922-1923 .	1,453	13	2	8	3	108	3	3	1,593	1,726	3,319
1923-1924 .	1,319	11	6	7	7	123	6	7	1,486	1,702	3,188
1924-1925 .	1,614	12	10	9	7	155	5	11	1,823	1,970	3,793
1925-1926 .	1,287	16	11	15	7	217	2	9	1,564	1,954	3,518
1926-1927 .	1,467	20	17	16	12	244	2	10	1,738	2,259	4,047
1927-1928 .	1,543	20	26	23	15	323	7	11	1,973	2,357	4,330
1928-1929 .	1,457	20	38	30	11	357	13	11	1,937	1,893	3,830

board of the Bay of Bengal. Italian goods have almost exclusively been coloured goods of special types though there is evidence that their range has recently begun to extend. From the United States of America the pre-war imports were mainly drills and jeans, but now consist largely of "fents," which form purely a waste-product trade. Imports from Switzerland are mainly of British

cloths sent to Switzerland for mercerising or other forms of special finish, and the absence of figures in this column prior to 1910-11 is due to the fact that up to that time imports were recorded by countries of shipment and not of consignment. Imports from China consist almost entirely of the products of Japanese owned mills in that country and for practical purposes may be treated as imports from Japan. The bulk of imports from "other countries" before the war came from Central Europe and included British cloth sent there for finishing. These trades disappeared on the outbreak of war and have not shown much sign of resuscitation since.

The table displays clearly the advantage taken by the Japanese industry of war conditions. What it does not disclose is the large quantity of British goods imported from the United Kingdom into India in Japanese bottoms by Japanese business houses in 1918, when British merchants found the greatest difficulty in securing freight. The knowledge of the British trade acquired at this time has undoubtedly been of very great value to Japanese trade in the subsequent years. The figures of imports from Japan and the United Kingdom for the last ten years are particularly interesting. The very high prices of American cotton in the years after the war brought cloth to a price at which there was a substantial falling-off in the Indian demand. The Lancashire mills for a long period worked on short time but the Japanese industry despite the strides it had made during the war had not the reserves to face a period of depression with the same success as the British industry. Nor had their methods altogether inspired the Indian market with confidence in the period immediately following the armistice, and it was not until 1926-27 that the volume of imports from Japan reached the 1918-19 figure. Subsequent expansion, however, has been rapid and shows every sign of continuing, while the trade with the United Kingdom has made no progress since 1922-23.

TABLE XVII.—Exports and re-exports of piece-goods in millions of yards.

	RE-EXPORTS				EXPORTS.			
	Grey	White	Coloured	Total	Grey	White	Coloured	Total
1910-20 . . .	38	19	32	89	74	2	121	197
1920-21 . . .	35	7	19	61	46	2	96	146
1921-22 . . .	49	9	16	74	24	1	136	161
1922-23 . . .	52	7	16	75	31	1	125	157
1923-24 . . .	41	7	13	61	34	1	130	165
1924-25 . . .	33	7	14	54	44	1	136	181
1925-26 . . .	16	7	12	35	37	1	127	165
1926-27 . . .	12	5	12	29	20	2	176	198
1927-28 . . .	16	5	13	34	18	1	149	168
1928-29 . . .	7	4	13	24	16	1	131	149

Ten years' figures for exports and re-exports are given in the above table. The falling-off in the overseas trade in greys is the most prominent feature of the table. This trade is practically confined to Bombay and formerly served numerous markets round the shores of the Indian Ocean, notably Persia and Iraq. So long as Japan was dependent on transshipment at Bombay the Indian mills were able to compete but in the last few years direct Japanese services to Aden, East Africa and the Persian Gulf have not only reduced the re-export trade considerably, but have deprived the Bombay mills of the advantage they had in the matter of freight. In the coloured goods trade the Indian mills appear to have been able to hold their own.

It is usual and may even be regarded as essential in an enquiry of this nature to deal with retained goods only, *i.e.*, to reduce figures of import by the quantities re-exported and to subtract exports from local production. Unfortunately exports are classified in the export returns under a limited number of heads and of the 116 milyards of Indian coloured goods exported from Bombay in 1927-28 106 are returned as "other sorts". The "coloured" figures, moreover, include large exports from Madras, amounting to 42 milyards in 1927-28, of hand-woven goods, mostly saris and scarves. The re-export returns are even less specific and no figures for exports by land since 1924-25 are available, while the earlier transfrontier figures are of very doubtful accuracy. It seems, on the whole, simplest to regard those markets to which cloth is exported or re-exported from India as forming a part of the Indian market and later to adjust the conclusions drawn in the light of such detailed information regarding exports and re-exports as can be obtained from the published figures or from other sources.

Bordered Grey goods.

12. In the principal tables in this and succeeding paragraphs I have displayed the imports of the various classes of goods in the main groups for a period of thirty years. Separate tables have been given for Japan and those other countries whose contributions are of any importance. I have not given separate figures in every case for the United Kingdom since, in the early years, they were identical under many heads with the gross figures, and where they were not they can readily be deduced by subtracting figures under other countries from those in the main table. In the detailed discussions under the various sub-heads recent figures for the United Kingdom will generally be found.

The bordered grey *chadar* has always been essentially an indigenous product. The annual imports even before the war rarely amounted to 5 milyards annually and now average only about 1 milyard, practically all of which comes from the United Kingdom, whereas the annual Indian production, which was 43 milyards in 1907-08 and 67 in 1927-28, has been as high as 75 and never lower than 38. These cloths are almost all woven from yarns coarser

TABLE XVIII.—Imports of Grey goods (all countries).

	IN MILLIONS OF YARDS.								IN RA. LAKHS.
	Shirts, Saris, Scarves and chaddars.	Jaconets, including Mullis, Madapol- lans, Cambrics, etc.	Longcloth and shirt- ings.	T-cloths and Domes- tics.	Drills and Jeans.	Sheetings.	Unspecified.	TOTAL.	TOTAL.
1899-1900 .	512	198	586	15	20	..	4	1,275	1,398
1900-1901 .	459	152	540	15	25	..	1	1,192	1,435
1901-1902 .	472	147	530	15	21	..	2	1,187	1,457
1902-1903 .	498	130	612	17	25	..	2	1,284	1,546
1903-1904 .	454	130	466	12	21	..	2	1,085	1,327
1904-1905 .	530	181	518	12	19	.	..	1,210	1,638
1905-1906 .	566	189	606	9	28	.	1	1,349	1,803
1906-1907 .	504	182	625	13	23	..	2	1,299	1,870
1907-1908 .	507	140	581	8	17	..	1	1,254	1,941
1908-1909 .	464	100	452	7	18	..	2	1,043	1,519
1909-1910 .	608	115	484	9	19	1	1	1,237	1,871
1910-1911 .	527	117	464	4	17	..	1	1,130	1,769
1911-1912 .	578	117	498	5	19	..	2	1,219	1,905
1912-1913 .	728	142	622	10	29	2	2	1,535	2,511
1913-1914 .	809	150	545	6	21	..	3	1,534	2,544
1914-1915 .	666	111	515	5	19	1	3	1,320	2,129
1915-1916 .	612	102	406	2	23	2	1	1,148	1,809
1916-1917 .	522	83	185	..	21	35	1	847	1,687
1917-1918 .	398	63	123	3	8	30	1	626	1,843
1918-1919 .	304	49	160	3	14	54	..	584	2,369
1919-1920 .	347	41	114	2	10	18	..	534	2,251
1920-1921 .	292	39	182	3	18	46	..	580	2,645
1921-1922 .	384	55	129	..	16	50	2	636	2,265
1922-1923 .	507	64	280	1	14	45	..	931	3,044
1923-1924 .	433	73	119	1	17	61	..	704	2,306
1924-1925 .	492	89	207	1	17	39	1	846	2,849
1925-1926 .	430	57	171	..	19	30	2	709	2,189
1926-1927 .	471	73	169	1	15	18	1	748	1,962
1927-1928 .	528	60	233	..	11	23	1	876	2,125
1928-1929 .	488	79	252	..	12	7	1	639	2,019
1929-1930 (6 months)	229	29	161	..	6	8	..	433	..

TABLE XIX.—*Grey (U. S. A.)*

	IN MILLIONS OF YARDS.				IN RS. LAKHS.
	Drills and Jeans.	Sheetings.	Longcloth and shirtings.	TOTAL.	TOTAL.
1899-1900	4	..	..	4	7
1900-1901	8	..	..	8	15
1901-1902	6	..	..	6	11
1902-1903	7	..	..	7	13
1903-1904	6	..	..	6	12
1904-1905	4	.	..	4	10
1905-1906	10	..	..	10	24
1906-1907	8	..	..	8	18
1907-1908	4		..	4	14
1908-1909	8	..		8	18
1909-1910	9	..	..	9	21
1910-1911	8	..	..	8	21
1911-1912	9	..	..	9	22
1912-1913	15	..	.	15	39
1913-1914	10	..	..	10	25
1914-1915	9	..	..	9	23
1915-1916	13	.	..	13	34
1916-1917	7	..	..	7	24
1917-1918	1	5	..	6	17
1918-1919	1	..	..	1	2
1919-1920	4	1		5	35
1920-1921	4	4	..	8	51
1921-1922	9	11	1	21	75
1922-1923	3	1	..	4	19
1923-1924	1	..	..	1	3
1924-1925	2	..	..	2	14
1925-1926	2	..	..	2	10
1926-1927	2	..		2	10
1927-1928	2	..	..	2	7
1928-1929	1	..	..	1	6

TABLE XX.—*Grey (China and Japan).*

	IN MILLIONS OF YARDS.								IN RS. LAKHS.
	Dhatis, Saris, Scarves and chaddars.	Jaconets, including Mulls, Madras, Cambrics, etc.	Longcloth and shirtings.	T-cloths and Dometics.	Drills and Jeans.	Sheetings.	Unspecified.	TOTAL.	TOTAL.
1912-1913	..	..	3	..	1	1	..	5	10
1913-1914	..	..	5	..	2	..	..	7	14
1914-1915	..	1	11	..	2	1	..	15	27
1915-1916	..	3	24	..	6	2	..	35	61
1916-1917	..	2	29	..	10	34	1	76	180
1917-1918	..	1	40	2	6	25	..	74	250
1918-1919	1	7	131	2	14	52	..	207	900
1919-1920	..	2	38	..	4	16	..	63	290
1920-1921	..	1	93	2	12	42 (1)	..	151 (1)	719 (2)
1921-1922	..	..	41	..	7	36 (1)	..	84 (1)	339 (2)
1922-1923	..	..	39	..	10	44 (3)	..	93 (3)	361 (9)
1923-1924	..	..	26	..	16	60 (6)	..	102 (6)	367 (23)
1924-1925	1	..	61 (1)	..	15	38 (4)	..	115 (5)	426 (17)
1925-1926	14	..	84	..	16	30 (2)	1	145 (2)	498 (7)
1926-1927	29	..	97	..	12	18 (2)	1	157 (2)	427 (4)
1927-1928	34	..	157 (3)	..	9	22 (4)	..	222 (7)	562 (16)
1928-1929	35	..	203 (12)	..	10	6 (1)	1	255 (13)	644 (23)
1929-1930 (6 months)	24	..	149 (5)	..	5	8 (1)	..	186 (6)	..

N B—The above figures represent imports from Japan and China combined. The figures for China only are shown in brackets against the combined figures.

than 24s and competition from imports is negligible. There has been no appreciable change since the Tariff Board reported, imports in the last two years being a little less than in 1926-27, though a little more than in 1925-26.

The import heading " Dhutis, Saris and Scarves " corresponds to the single head " dhutis " in the returns of production. Prior to 1924-25 all imported *dhutis* came from the United Kingdom. Since then Japan has entered the market and the difference between the figures under this head in Tables XVIII and XX represents imports from the United Kingdom. A slight correction, however, has to be made. The 1928-29 figures include imports of " white yarn " *dhutis* and the 1927-28 figures also include such imports for the last 8 months of the year. Prior to August 1927 they were classed in Calcutta as bleached goods, which was erroneous since they are woven from fine white, but unbleached, Egyptian cotton. Imports of these *dhutis* in 1928-29 were 74 milyards and for 8 months of 1927-28 42 milyards. Earlier figures are not available but a comparison with the figures given for bleached *dhutis* in table XXX suggests that up to 1924-25 they were being classed either as grey or white according to whether the word " unbleached " did or did not occur in the invoice and that only from April 1926 to July 1927 were they all classed as white. It will probably not be far from the truth to take 43 milyards as the correct figure for bleached *dhutis* for each of the past five years. This will give the following figures for grey or unbleached *dhutis* :—

TABLE XXI.—Imports of grey dhutis.

	FROM UNITED KINGDOM.			From Japan.	Total Imports.	Production in India mills.
	White yarn.	Others.	Total.			
1924-25 . .	..	.	518	1	519	458
1925-26 . .	..	..	446	14	460	516
1926-27 . .	..	.	513	29	542	586
1927-28 . .	71	452	523	24	557	616
1928-29 . .	73	380	453	35	488	564
1929-30 (6 months) .	39	166	205	24	229	..

It is clear that the import trade is making no headway against local production and that only the strikes of 1928 which caused a drop of 82 milyards in the figures for Bombay Island has checked

the steady advance of the latter. The restriction on forward purchases for the Calcutta market in 1928-29 seriously affected the Lancashire trade and the figures for the first half of the current year suggest that Japan is going ahead at the expense of Lancashire.

To appreciate fully the situation in this branch of the trade one has to look beyond mere figures of quantity. As has already been observed *dhutis* are not strictly piece-goods: they are rather pieces or sets of pieces of apparel. Tradition has made Calcutta the principal market in these goods for the north of India, and Bombay-made *dhutis* are sold on the Calcutta market even for despatch to places like Amritsar and Peshawar. The bulk of the *dhuti* trade for the north of India is in pairs or sets of three in sizes not exceeding 45 inches by 5 yards the unit. In Bombay the "chola" or set of four *dhutis* is occasionally met with, and there, and in Madras where plain unbordered cloth of various types often takes the place of the bordered *dhuti*, the fashionable waist-line is such as to necessitate an extra 5 or 6 inches of width. In Bombay, moreover, the white *dhuti* is more popular than the grey and some of the *dhutis* made in the Bombay mills in these wider dimensions for the local market are bleached. The total quantity is, however, very small. What particularly distinguishes the *dhuti* trade from other lines of business in piece-goods, is the necessity of packing in assortments, both of size and border and heading. Actually the wider borders which differentiate the *sari* from the *dhuti* only constitute a small proportion of the trade since the grey-bordered *sari* is not nearly so universal among Hindu women as the *dhuti* among men, its place being often taken by "pai-jamas", or by a silk or coloured cotton *sari*. Nevertheless the wide-bordered *sari* affords much greater scope for variety of design than the *dhuti* proper and the nature of the border and heading exerts a much greater influence on the price than with the narrow *dhuti* border. The *sari* border varies from $\frac{1}{3}$ ths of an inch to as much as four inches. It may be a simple plain-woven stripe of coloured cotton, or it may be of "dobby" or other fancy weave. Again, artificial or real silk or gold thread may be used for the border in which case the *sari* will only be assessed at 11 per cent as cotton piece-goods if the width covered by the extraneous material is less than one-fifth of the width of the cloth.

The great diversity of type among goods in this class greatly increases the difficulty of comparing the foreign with the indigenous product. This difficulty is further enhanced by the fact that it was found to be impossible, without disproportionate inconvenience to the trade, to obtain details of weights of *dhutis* when compiling the special record in Calcutta. Detailed weights are not usually quoted in invoices for *dhutis* and where several varieties are packed in one bale individual weights can only be obtained by opening the bale and actually weighing the various types separately. Fortunately, however, it has been the custom in Calcutta for the past three years to record imports of *dhutis* under three heads, "Shirting" *dhutis*, "Jaconet" *dhutis* and

“ Mull ” *dhutis* according to the fineness of the yarn from which they are woven. The *Jaconet dhuti* has a warp from 41s to 50s while the *Shirting dhuti* is coarser than this and the *Mull dhuti* (which will include the “ white yarn ” *dhuti*) finer. The figures are as follows:—

TABLE XXII.—*Classified imports of grey dhutis (Calcutta only).*

	UNITED KINGDOM.				JAPAN.			
	Shirting.	Jaconet.	Mull.	Total.	Shirting	Jaconet	Mull.	Total.
1926-27	98	251	101	450	23	1	3	27
1927-28	105	281	92	478	26	1	5	32
1928-29	88	230	109	427	29	1	2	32
1929-30 (6 months)	38	97	51	186	20	1	1	22

In Bombay and Madras, where the trade is small and there are few large mixed consignments of *dhutis*, it was found possible to record weights and from the Special Record maintained at those ports it appears that all the *dhutis* imported there would fall in either the Mull or the Jaconet class (mostly in the former). The *shirting dhutis* imported into Calcutta include but few with warps coarser than 31s but in the absence of reliable figures one-third of the total *shirting dhutis* imported may be supposed to have warp below this figure. This estimate is probably on the high side. On the other hand it has been shown in paragraph 10 that not more than 12 per cent. of the Indian production is woven from counts of over 30s and only 3 per cent from counts above 40s. Thus in present circumstances it may be assumed, taking 1927-28 figures as typical, that the Indian mills produce 542 milyards of coarse *dhutis* of which type 35 milyards are imported, that there is an intermediate class with warps from 31s to 40s comprising 56 milyards of local production and 131 milyards of imports, and a fine class containing 19 milyards of local and 426 milyards of imported cloth. The direct competition can therefore be displayed in tabular form thus:—

TABLE XXIII.—*Grey dhutis. Competition in 1927-28.*

Count of warp.	Indian dhuties.	Imported dhuties.
Up to 30s	542	35
31s to 40s	56	95
Above 40s	19	426
TOTAL	617	557

As regards changes in this trade since the Tariff Board reported, it is clear that importers of Lancashire goods took no advantage

of conditions in Bombay in 1928-29. If Japan is making headway it is mainly in respect of the finer qualities of shirting *dhuti*. The progress made by Bombay as compared with Ahmedabad and other centres has been referred to in paragraph 8.

TABLE XXIV.—Imports and Production of grey longcloth and shirtings in millions of yards.

	IMPORTS.				PRODUCTION.			TOTAL.
	United Kingdom.	Japan and China.	Other sources	Total.	Bombay city.	Other mills.	Total.	Imports and Indian production.
1907-08	581	.	.	581	159	48	207	788
1908-09	451	.	1	452	151	55	206	657
1909-10	482	.	2	484	174	70	244	728
1910-11	462	.	2	464	196	92	288	754
1911-12	497	.	1	498	219	94	315	811
1912-13	619	3	.	622	199	103	302	924
1913-14	540	5	.	545	190	102	292	837
1914-15	502	11	2	515	201	120	321	836
1915-16	382	24	.	406	260	150	410	825
1916-17	155	29	1	185	236	192	428	613
1917-18	83	40	.	123	297	154	451	574
1918-19	28	131	1	160	233	160	393	553
1919-20	76	88	.	114	256	189	445	559
1920-21	88	93	1	182	270	186	456	638
1921-22	87	41	1	129	312	175	487	616
1922-23	241	39	..	280	289	181	470	750
1923-24	93	26	..	119	279	164	443	562
1924-25	146	61	.	207	326	200	526	733
1925-26	67	84	..	171	307	214	521	692
1926-27	71	97	1	169	374	206	580	749
1927-28	76	157	..	233	378	242	620	853
1928-29	48	203	1	252	168	306	474	726
1929-30 (6 months)	12	149	..	161	.	.	.	.

Plain grey goods: Shirtings and Longcloth.

13. This is by far the most important single class of piece-goods to be considered. It now provides one-third of the total output in Bombay and one-fourth of the total Indian output. Before the war it accounted for one-fifth of the total imports from the United Kingdom and now accounts for two-thirds of the imports from Japan. Finally it is the class in which the most rapid and far-reaching developments are now taking place. Table XXIV gives a general conspectus of the history of the trade since Japan began to participate. It shows the loss of the United Kingdom trade during the war, its partial recovery and, finally, its almost complete surrender to Japan. The figures for China have been included in the Table with those for Japan as the imports from that source are practically all the produce of Japanese-controlled mills.

The imports of grey shirtings from the United Kingdom in August amounted to less than one milyard, and even this quantity so far, at any rate, as Calcutta was concerned consisted mainly of small shipments designed to keep alive certain well-known trade-marks. The entries in the Special Record of imports from Japan have all been carefully analysed and the "apparent counts" of each consignment calculated.

The results are displayed in the table below :—

TABLE XXV.—Imports of Japanese longcloth and shirtings during August 1929 in milyards, classified according to "apparent counts".

	40s and above.	31s-39s	25s-30s	20s-24s	Below 20s	Total.
Calcutta	1.5	5.4	6.6	..	.7	14.2
Bombay	4.6	3.4	3.2	.	1.1	12.3
Sind . . .		.2	..	..	2.0	2.2
Madras . .	7	..	..	.	..	.7
Burma . . .	..	.5	.	..	.7	1.2
TOTAL . . .	6.8	9.5	9.8	..	4.5	30.6

The class shown under the head "Below 20s" comprises the "heavy shirtings" which will be dealt with in the paragraphs relating to sheetings. They are all fairly heavily-sized in the warp and it is probable that they are mostly woven from yarns whose counts range from 21s to 26s. The absence of imports in the class 20s-24s is most striking, and in the next class 25s-30s it is exceedingly unlikely that any appreciable quantity had so little size that yarns below 30s could have been used in its production. In all the cheaper qualities of cloth smooth surface and opacity are features which enhance the selling value. Grey shirtings, moreover, are often sold in India by weight, and the Japanese practice of adding from 30 to 50 per cent. of sizing to the warp yarn in all the coarser cloths provides additional weight at the minimum of expense while increasing opacity and giving the smooth finish which the Indian purchaser finds attractive. The Japanese producer is content apparently to leave the coarser qualities of light shirtings completely untouched. In the medium cloths with apparent counts of 30s and upwards, less sizing is used, and it is in these, which formed the bulk of the Lancashire trade, that Japan has established an almost complete mastery.

I would refer at this point to the concluding sentence of paragraph 25 of the Tariff Board's report in so far as it relates to grey goods. The reduction of imports into Bombay in 1924-25 is accounted for by the drop in sheetings intended for re-export and despite the continuance of that cause imports of greys into Bombay in the following year increased by more than 25 per cent. Thereafter the entry of Japan into the *dhuti* trade increased the Calcutta percentage. There was a drop in the imports of Japanese shirtings into Bombay in 1926-27, but the reason for this was that they were still confining themselves to the medium cloths, and it is only in the last two years that they have seriously tackled the finer classes of grey shirtings for which, as will be seen from

Table XXV it is Bombay and not Calcutta that provides the best market.

Thus, since the Tariff Board report, there have been very great changes in this trade. Imports from Japan and China have increased from 84 milyards in 1925-26 to 203 in 1928-29 and 149 in the first half of 1929-30. The United Kingdom trade has practically been reduced to the mere maintenance of trade-marks. No statistical estimate can be made of the effect on the mills since recent developments have been obscured by the effect of labour troubles in Bombay which have given mills elsewhere a respite against the onslaught of outside competition.

Plain Grey Goods: Sheetings, T-cloths and Domesticcs.

14. These three types of goods are classed together in the returns of production, and as the import of the two latter classes has recently been very small I propose to deal with the combined figures. A reference to Table XVIII will show that the import trade in T-cloths and Domesticcs fell to negligible proportions about 1916-17 when the import trade in sheetings first became appreciable. The former was a Manchester trade; the latter has been exclusively Japanese. The table below compares production in Bombay and elsewhere in India with imports over a period of 22 years.

TABLE XXVI.—*Imports and production of T-Cloths, Domesticcs and Sheetings in millions of yards.*

	Imports.	PRODUCTION.			Total imports plus production.
		Bombay City.	Other Indian Mills	Total.	
1907-08	8	89	31	120	128
1908-09	7	93	31	124	131
1909-10	10	102	39	141	151
1910-11	4	98	41	139	143
1911-12	5	96	46	142	147
1912-13	12	93	55	148	160
1913-14	6	78	51	129	135
1914-15	6	84	53	134	140
1915-16	4	109	42	151	155
1916-17	35	145	47	192	227
1917-18	33	93	44	137	170
1918-19	57	65	46	111	168
1919-20	20	83	39	122	142
1920-21	49	69	28	97	146
1921-22	50	54	30	84	134
1922-23	46	48	33	81	127
1923-24	62	39	29	68	130
1924-25	40	45	32	77	117
1925-26	30	36	38	74	104
1926-27	19	49	44	93	112
1927-28	24	39	53	92	116
1928-29	7	18	57	75	82

The figures at first sight are very puzzling. The loss of the sheeting trade owing to Japanese competition was a matter on which

the Bombay Millowners laid great stress before the Tariff Board, and on which they are still equally insistent, and yet the recorded imports of sheetings have recently been declining. I have been at some pains to arrive at a solution of this apparent mystery, and if I am correct the result throws a great deal of light on the whole problem of Japanese competition. The first step is to appreciate the importance of the export and re-export trades in these figures. Unfortunately "T-cloths and Domestic" are shown separately only in the export returns and "sheetings" in neither the export nor the re-export returns.

The Trade Mission to the Near East and Africa in 1928, however, commented on the demand for grey sheetings in nearly all the countries they visited, and in almost every market, though the Indian sheeting was known, the Japanese predominated. The falling-off in Japanese imports into India is no doubt partly to be accounted for by the establishment, since the war, of direct steamer services from Japan to destinations which had previously been served by re-export from Bombay. This is particularly true of Iraq and East Africa. It is therefore reasonable to suppose that so long as Japanese goods had to travel *via* Bombay the Bombay product stood some chance of competing in these markets. Even in the absence of exact figures it will be instructive to make a rough estimate of exports and re-exports and to compare it with the production figures. For this purpose I assume exports of "T-cloths and Domestic" and sheetings" to have been four-thirds of the actual figures for "T-cloths and Domestic". This credits sheetings with the greater part of the grey cloth exported under the "unspecified" head. In the re-export returns all grey goods are lumped together and I propose to credit sheetings with two-thirds of the total. Neither estimate can be very far from the truth. The result is displayed in the following table:—

TABLE XXVII.—*Grey Sheetings. Exports and Re-exports in millions of yards.*

	Exports.	Re-exports	Total	Imports	PRODUCTION.		Total imports plus production.	Nett quantity available for consumption
					Bombay Island	Other mills.		
1919-20	41	26	67	20	83	39	142	85
1920-21	33	23	56	49	69	28	146	90
1921-22	12	33	45	50	54	30	134	89
1922-23	13	35	48	46	48	33	127	79
1923-24	16	28	44	62	39	29	130	86
1924-25	23	22	45	40	45	32	117	72
1925-26	17	11	28	30	36	38	104	76
1926-27	1	8	9	19	49	44	112	103
1927-28	1	11	12	24	39	53	116	104
1928-29			..	7	18	57	82	82

It will be convenient to consider, first, the period ending March 31st, 1926. A valuable export trade had clearly fallen off but the reduction only accounted for about half the drop in the Bombay output. Production elsewhere in India, which was all for the home market, had remained steady but had not shared in the general advance in production, while the nett quantity available for local consumption had fallen. The next three years witnessed the complete elimination of both the export and re-export trade, a collapse in imports and a rapid increase in Indian production outside Bombay. Even the Bombay figures do not suggest any serious difficulty in respect of these goods other than such as can be attributed to labour troubles. Yet the complaints regarding competition from Japanese sheetings which emanate not only from Bombay but also from other centres of production remain much too serious to be ignored. Particularly significant are the complaints from mills in the Calcutta distribution area, seeing that imports of sheetings into Calcutta have always been small. The study of the special record for August has provided a clue which I believe leads to the truth. Analysis of the entries in the Special Record under the head "shirtings and longcloth" disclosed the interesting fact that there were no imports during the month of which the apparent counts were above 21s and below 25s. Further, it showed that none of the cloth of 25s or above weighed more than 9 pounds for 40 square yards and none of the cloth of 21s. and below less than 10 pounds for 40 square yards. Finally, whereas practically all the cloth in the former class was of the usual grey shirting dimensions, *i.e.*, not more than 39 yards in length, the heavier class was all in pieces of either 30 or 40 yards in length and generally of 36 or occasionally of 35 inches in width, which are the usual sheeting dimensions. The Custom Houses have no authoritative definitions of sheetings or shirtings to work on and as revenue is not concerned they are entitled to suppose that the trader knows his own business. It cannot be said, therefore, that these entries, which have followed the importers declarations, have been incorrectly classified as shirtings though they undoubtedly compete with sheetings.

The Report of the Trade Mission in 1928 contained a list of samples collected at the various ports but does not contain a list of the samples supplied to the Trade Mission by the Millowners' Association. The Millowners, however, very kindly supplied me with the list and many of the samples have been examined by Mr. H. Mukherji. They include, among other grey cloths, those shown in the following list. The nomenclature is that of the mills.

It is clear that there is no little diversity in the nomenclature applied to these heavy cloths, all of which must be in fairly direct competition with one another. The popular size and weight in the markets visited by the Trade Mission as in the Import market in Calcutta and Bombay is the 12-lb. 40 x 36" cloth, and the only mill which supplied this to the Mission as a trade sample described it

TABLE XXVIII.—*List of certain Grey Sheetings and Heavy Shirtings produced in the Bombay and Sholapur Mills.*

Name of cloth.	Length in yards	Width in inches.	Weight in pounds.
Grey Sheeting	40	35	13½
Grey Longcloth	37½	28	7
Grey Longcloth	37½	30	7½
Grey Longcloth	37½	32	8
Grey Longcloth	37½	34	8½
Grey Longcloth	37½	36	9
Grey Longcloth	37½	38	9½
Grey Longcloth	37½	40	10
Grey Sheeting	37½	24	6½
Grey Sheeting	37½	26	6½
Grey Sheeting	37½	28	7½
Grey Sheeting	37½	33	8½
Grey Sheeting	37½	35	9½
Grey Sheeting	37½	37	9½
Grey Sheeting	37½	39	10½
Grey Sheeting	37½	41	10½
Grey Sheeting	37½	43	11½
Heavy Grey Shirting	38	30	9
Heavy Grey Shirting	38	43	11½
Sheeting	30	36	9½
Sheeting	40	36	12
Sheeting	40	36	12½
Sheeting	30	36	10
Grey Shirting	40	36	12
Grey Shirting	40	35	11
Grey Sheeting	40	35	11
Grey Sheeting	40	35	13
Grey Sheeting	40	35	12½
Grey Sheeting	40	35	13½
Grey Sheeting	40	35	12
Grey Longcloth	37½	36	9
Grey Longcloth	37½	37	8
Grey Longcloth	33	45	11½
Grey Longcloth	40	31	10½

as a sheeting whereas it is generally, but not always, entered at the time of import as a shirting. The Calcutta sheeting head includes a few of these cloths but in the Bombay record the only 40 yard cloths entered as sheetings weighed either 16 or 17 pounds. There were however a few 30 × 36" 9-lb. cloths entered as sheetings though the majority of this dimension also were of heavier weights. In Karachi and Rangoon the sheeting class included certain cloths weighing from 10 to 11½ lbs. per 40 square yards. In the 12-lb. class it is noticeable that the number of elementary threads is less when the cloth is called a sheeting than when it is called a shirting and the conclusion to which the figures lead is that only when yarns not above a certain count are used is the cloth termed a sheeting. In the Calcutta cloth market I was told that the upper limit for Indian sheetings was 18s × 20s and for Japanese 22s × 24s. The 12-lb. heavy shirtings from Japan are fairly heavily sized in the warp and it was stated in the Calcutta market

that most of them were further sized after weaving, but no confirmation of this was obtained from the analysis of samples. In the month of August some 4 milyards of heavy shirtings were imported into India in addition to $1\frac{1}{2}$ milyards of sheetings so-called, so that the total imports of these heavy cloths must actually be about 66 milyards annually. The conclusion appears to be that only in T-cloths and domestics and in heavy sheetings can the Indian mills hold their own. In light sheetings or heavy shirtings, whichever they be called, there is a flourishing import trade of which Japan has the monopoly and with which India cannot compete successfully. In view of what has been said no statement can be made as to changes in the import trade since the Tariff Board reported, nor can any reliable estimate be made as to any reduction of output in cloths classed by the Mills as heavy shirtings. It is, however, clear that the export trade has completely collapsed. An amendment of the various statistical classifications which will bring all these heavy cloths together is urgently required.

TABLE XXIX.—Imports and Production of Grey Drills and Jeans in millions of yards.

	IMPORTS				PRODUCTION			Total.
	United Kingdom	Japan	U. S. A	Total.	Bombay	Other Indian Mills.	Total Indian Production.	
1907-08	12		5	17	10	12	22	39
1908-09	9		9	18	11	14	25	43
1909-10	10		9	19	10	12	22	41
1910-11	9		8	17	12	14	26	43
1911-12	10		9	19	14	14	28	47
1912-13	12	1	15	29	15	15	30	59
1913-14	10	2	10	21	15	13	28	49
1914-15	8	2	9	19	18	13	31	50
1915-16	4	6	13	23	30	16	46	69
1916-17	4	10	7	21	36	21	57	78
1917-18	1	6	1	8	56	23	79	87
1918-19		14		14	33	21	54	68
1919-20	1	4	4	10	50	31	81	91
1920-21	1	12	4	18	46	28	74	92
1921-22		7	9	16	36	24	60	76
1922-23	1	10	3	14	32	24	56	70
1923-24		16	1	17	33	22	55	92
1924-25		15	2	17	50	27	77	94
1925-26	1	16	2	19	38	46	84	103
1926-27	1	12	2	15	50	30	80	95
1927-28		9	2	11	59	32	91	102
1928-29	..	10	1	12	38	38	76	88

Plain Grey Goods: Drills and Jeans.

15. There has been a healthy growth in the demand for these stout cloths for the production of which Indian cotton is particularly well suited. The United Kingdom and the United States of America, formerly the principal suppliers of imported grey drills and jeans, have ceased to compete seriously and Japan is making no progress. In the steady growth of the Indian output the Bombay mills more than held their own up to 1927-28 and in the last three years the only appreciable change has been a slight fall

in imports as compared with the previous three years. I was shown grey Bombay drills in the Calcutta market which were alleged to have ousted a Japanese drill which a few years ago was very popular. Nevertheless, such drills as are imported are in direct competition with the Indian output. A certain small percentage of the Bombay output consisting of the lighter qualities is bleached, but the output of drills and jeans in Ahmedabad where bleaching is much cheaper is very small. Imports of bleached drills average about 6 milyards annually, two-thirds of which are from the United Kingdom, and one-third from Japan.

Jaconets including Madapollams Mulls and Cambrics.—The import trade in fine goods has definitely fallen off since the war. The trade in fine whites remains healthy and it is likely that whites are taking the place of fine greys to a large extent. It is also possible that the coarser qualities in the dimensions appropriate to these heads are giving place to the finer qualities in the shirting dimensions. There is little, if any, manufacture of goods of these classes in India and almost the only source of supply is the United Kingdom. There has been a slight increase in imports since the Tariff Board reported.

TABLE XXX.—Imports of White (Bleached) goods: all countries.

	IN MILLIONS OF YARDS.										In Rs Lakhs	
	Checks, Spots and Stripes	Dhntis, Saris, Scarves and chadars.	Mulls.	Jaconets, Madapollams, Cambrics and Muslins.	Nansooks	Longcloth and Shirtings.	Lawns.	Drills and Jeans.	Twills	Unspecified.	TOTAL	TOTAL
1899-1900	7	64	93	33	161	62				20	445	534
1900-01	7	55	118	44	133	89				14	467	611
1901-02	12	59	133	52	209	89				20	580	784
1902-03	6	53	81	26	135	72				13	390	511
1903-04	6	55	102	32	182	67				18	466	621
1904-05	8	57		182	177	131				21	584	826
1905-06	5	59		140	229	113				17	573	847
1906-07	5	52		170	175	76				14	495	738
1907-08	10	80		200	248	156				32	733	1,182
1908-09	9	52		152	135	106				16	477	778
1909-10	9	58		142	166	94				18	493	768
1910-11	13	57		191	198	100				20	587	954
1911-12	12	64		174	192	156				20	630	1,097
1912-13	13	75		226	236	180				26	769	1,352
1913-14	16	107		308	205	115				28	793	1,438
1914-15	10	105		213	135	116				13	604	1,086
1915-16	13	53		176	171	163			11	18	611	1,068
1916-17	11	65		183	169	123			9	23	590	1,279
1917-18	5	42	151	14	150	113			7	7	502	1,420
1918-19	1	36	129	4	27	66			12	12	287	1,312
1919-20	4	38	110	10	59	77			11	22	322	1,596
1920-21	9	36	94	12	122	109			13	12	422	2,190
1921-22	2	82	138	6	63	48			3	2	306	1,267
1922-23	6	45	159	7	91	69			6	7	402	1,501
1923-24	8	46	165	8	88	67			7	15	415	1,544
1924-25	11	70§	186	9	105	123			13	17	549	2,023
1925-26	7	73§	169	9	77	94			12	9	465	1,599
1926-27	12	114§	220	15	66	97	15		12	15	571	1,763
1927-28	14	72§	208	16	93	112	8		15	11	556	1,542
1928-29	13	43	243	15	77	123	8		13	8	554	1,534
1929-30 (6 months)	6	31	109	9	27	49	6		9	3	253	..

§ These are the figures given in the trade returns. The actual figures for each of these four years should probably be about 43 (see paragraph 12).

TABLE XXXI.—*White (bleached) by countries of origin.*

	United Kingdom.	Netherlands	Switzerland.	Japan.	Others	TOTAL.
1899-1900	439	1	2	..	3	445
1900-01	462	2	2	..	1	467
1901-02	574	2	2	..	2	580
1902-03	383	3	2	..	2	390
1903-04	458	4	2	..	2	466
1904-05	575	4	3	..	2	584
1905-06	562	6	2	..	3	573
1906-07	486	4	2	..	3	495
1907-08	722	6	3	..	2	733
1908-09	466	7	3	..	1	477
1909-10	483	6	2	..	2	493
1910-11	576	6	3	..	2	587
1911-12	618	7	2	..	3	630
1912-13	756	9	3	..	1	769
1913-14	781	8	3	..	1	793
1914-15	596	7	1	..	..	604
1915-16	601	7	2	1	1	611
1916-17	582	3	1	3	1	590
1917-18	496	2	..	3	2	502
1918-19	275	..	..	10	1	287
1919-20	314	4	..	3	1	322
1920-21	409	6	2	4	1	422
1921-22	299	4	..	2	1	306
1922-23	395	3	1	2	1	402
1923-24	403	4	5	2	1	415
1924-25	533	5	5	5	1	549
1925-26	446	6	6	5	2	465
1926-27	550	6	9	3	3	571
1927-28	527	8	12	6	3	556
1928-29	525	8	9	5	7	554

White goods.

16. Tables XXX and XXXI show imports of the various classes of white goods for the past thirty years by classes and by countries of origin. The principal comment to be made on Table XXX is that it lacks any really interesting feature. It reflects the trade-booms of 1907-08 and of 1912-13 and 1913-14. It reflects also war and post-war difficulties but with less intensity than the other main groups, but apart from these features the total of the trade and its distribution over the various heads is much what it was thirty years ago. Bleached cloth is mainly a luxury of the wealthier classes. The demand for it is somewhat sensitive to fluctuations in price, and it is perhaps justifiable to assume that owing to the rise in prices the class which habitually buys white cloth, despite a general increase in population, is no more numerous than it was thirty years ago.

It has already been shown in the chapters on production that the output of plain bleached goods is negligible. It would be surprising were it otherwise. The "white" trade is essentially a trade in fine goods and except for small items like drills and jeans and sheetings the quantity of imported white goods made from yarns below 50s must be very small indeed. The average price of imported white drills is 60 per cent. higher than the price of greys, and they are all of a fine quality which does not compete with bleached Indian drills.

Unless and until there is in India a substantial production of fine goods, *i.e.* from counts 50s and upwards the import trade must continue to supply a demand which is definitely circumscribed and which does not trench on the field of operations of Indian production.

TABLE XXXII—Imports of coloured (Printed, Dyed and Woven) goods (all countries).

	IN MILLIONS OF YARDS.										IN RS. LAKHS.	
	Cambrics, Madapolams Mulls and Jaconets.	Chadars, dhutis, saris, scarves and lungis.	Drills and Jeans.	Printz and Chintz.	Shirtings.	Twills.	Flannels and Flannel-ettes.	Checks, Spots and Stripes.	Unspecified.	TO TAL.	TOTAL.	
1899-1900	103	44	6	161	73				85	472	659	
1900-01	59	49	5	109	51				70	343	579	
1901-02	84	48	6	152	62				71	423	673	
1902-03	84	56	6	156	65				67	434	660	
1903-04	79	67	6	171	65				93	481	799	
1904-05	74	65	5	182	63				105	494	909	
1905-06	86	74	7	185	80				110	542	955	
1906-07	89	73	6	192	71				94	525	956	
1907-08	73	66	9	200	62				120	544	1,080	
1908-09	65	81	11	128	71	14			92	473	925	
1909-10	82	72	15	122	76	21			75	463	868	
1910-11	113	83	17	152	105	25			97	596	1,176	
1911-12	101	96	21	135	87	27			122	560	1,226	
1912-13	102	133	23	179	108	30			11	117	832	
1913-14	114	115	30	210	153	31			11	159	832	
1914-15	72	100	20	105	77	18			10	93	495	
1915-16	41	57	20	86	56	12			10	77	359	
1916-17	49	64	20	107	64	17			17	117	455	
1917-18	51	41	23	101	61	23			11	75	396	
1918-19	29	22	17	70	25	11			4	227	1,182	

TABLE XXXIII.—Imports of Coloured—Printed goods (all countries).

	IN MILLIONS OF YARDS.										IN RS. LAKHS.			
	Cambrics including Mulls, Madapolams, Muslins and Jaconets.	Checks, Spots and Stripes.	Drills and Jeans.	Flannel and Flannel-ettes.	Lungis and Dhutis.	Printz and Chintz.	Saris and Scarves.	Sateens.	Shirtings.	Twills.	Woven lungis and Sarongs.	Unspecified.	TOTAL.	TOTAL.
1919-1920	21	1	3	..	6	47	12		12	3	..	12	117	597
1920-21	41	3	13	2	6	114	33		39	10	2	21	284	1,608
1921-22	14	..	7	..	3	29	15		8	3	2	4	85	425
1922-23	24	1	11	1	6	45	17		9	2	4	9	129	625
1923-24	31	1	11	1	4	61	30		17	7	4	15	182	814
1924-25	29	2	15	2	5	58	27		20	8	4	19	189	812
1925-26	22	1	16	4	6	54	26		4	16	7	7	167	655
1926-27	18	2	18	8	7	47	24		4	24	18	4	8	177
1927-28	23	2	31	12	5	68	30		5	29	15	6	9	235
1928-29	20	2	32	12	6	74	30		4	33	19	8	4	244
1929-30 (6 months)	7	1	24	2	4	31	13		1	17	5	4	2	111

THE EXTENT OF EXTERNAL COMPETITION.

459

TABLE XXXIV.—Imports of Coloured—Dyed goods (all countries).

	IN MILLIONS OF YARDS.												IN RS. LAKHS.	
	Cambrics including Madapolams, Muslins, Mulls and Jaconets.	Checks, Spots and Stripes.	Drills and Jeans.	Flannels and Flannellettes.	Langis and Dhutis.	Prints and Chintz.	Saris and Scarves.	Sateens and Itallans.	Shirtings.	Twills.	Unspecified.	TOTAL.	TOTAL.	TOTAL.
1910-1920	6	2	1	..	..	2	2	..	13	4	26	66	401
1920-21	13	7	4	3	..	1	1	..	25	10	61	134	1,152	
1921-22	3	1	2	1	..	..	..	..	15	2	11	35	209
1922-23	11	3	2	..	..	..	..	..	25	6	31	78	398
1923-24	12	4	2	1	1	..	..	..	25	9	56	110	612
1924-25	14	8	4	2	1	1	1	..	31	10	71	142	754	
1925-26	12	6	3	4	1	2	1	13	29	10	23	107	488	
1926-27	23	10	7	5	..	3	3	29	40	10	29	157	617	
1927-28	24	10	10	4	..	2	3	25	39	13	23	158	561	
1928-29	27	11	7	4	..	1	3	28	37	18	18	156	562	
1929-30 (6 months)	15	6	5	3	..	1	1	8	25	7	7	78	..	

TABLE XXXV.—Imports of Coloured—Woven goods (all countries).

	IN MILLIONS OF YARDS.												IN RS. LAKHS.	
	Cambrics including Muslins, Madapolams, Mulls and Jaconets.	Checks, Spots and Stripes.	Drills and Jeans.	Flannel and Flannellettes.	Dhutis, Langis and Sarongs.	Saris and Scarves.	Shirtings.	Twills.	Velvet and Velveteens.	Coatings and Trouserings.	Unspecified.	TOTAL.	TOTAL.	TOTAL.
1910-1920	2	3	2	..	5	..	3	1			10	35	277	
1920-21	1	5	2	4	7	2	7	3			39	71	695	
1921-22	..	2	1	..	6	..	2	1			6	19	127	
1922-23	1	3	2	1	3	2	4	1			17	38	237	
1923-24	1	3	3	2	5	3	9	1			27	55	343	
1924-25	2	5	6	2	5	3	18	4	Separately recorded from 1925-26.		31	76	436	
1925-26	1	4	13	4	9	3	27	3	1	7	20	92	449	
1926-27	2	6	20	5	12	6	27	6	1	11	13	114	492	
1927-28	3	7	23	4	9	5	20	12	2	9	17	111	438	
1928-29	2	10	18	3	4	3	26	12	2	11	16	107	432	
1929-30 (6 months)	1	6	13	1	4	1	11	5	1	3	9	60	..	

TABLE XXXVI.—Imports of coloured goods from Italy.

P=printed, D=dyed, W=woven.

	IN MILLIONS OF YARDS									IN RS. LAKHS.	
	Drills and Jeans.	Coatings and trou- serings	Italian cloth and sateens	Shirtings	Flannel and Flannellet.	Prints and Chintz	Twills.	Unspecified.	TOTAL.		TOTAL
1899-1900 . . . . .	..	..	..	..	..	..	..	2	2	8
1900-01 . . . . .	..	..	..	..	..	..	..	2	2	9
1901-02 . . . . .	..	..	..	..	..	..	..	2	2	10
1902-03 . . . . .	..	..	..	..	..	..	..	2	2	8
1903-04 . . . . .	..	..	..	..	..	..	..	2	2	10
1904-05 . . . . .	..	..	..	..	..	..	..	3	3	18
1905-06	1	..	..	..	..	..	..	2	3	16
1906-07	1	..	..	..	..	..	..	2	3	14
1907-08	2	..	..	..	..	..	..	4	6	24
1908-09	1	..	..	..	..	..	..	3	4	18
1909-10	2	..	..	..	..	..	..	3	5	20
1910-11	2	..	..	..	..	..	..	5	7	31
1911-12	2	..	..	..	..	..	..	5	7	30
1912-13	2	..	..	..	..	..	1	8	11	47
1913-14	2	..	..	..	..	1	2	17	22	85
1914-15 . . . . .	..	..	..	..	..	..	..	9	9	40
1915-16	1	..	..	..	..	..	1	11	13	62
1916-17 . . . . .	..	..	..	..	..	..	..	14	14	105
1917-18 . . . . .	..	..	..	..	..	..	..	7	7	65
1918-19 . . . . .	..	..	..	..	..	..	..	1	1	17
		W	D	P W	P D	P	P D	P W D			
1919-20 . . . . .	..	..	..	..	..	..	..	0 1 0	1	16
1920-21 . . . . .	..	..	..	..	..	..	..	1 6 4	10	123
1921-22 . . . . .	..	..	..	..	..	..	..	1 1 0	2	18
1922-23 . . . . .	..	..	..	..	..	..	..	1 1 0	2	16
1923-24 . . . . .	..	..	..	..	..	..	..	1 2 3	6	..
1924-25 . . . . .	..	..	..	..	1 1	1	..	0 3 4	10	73
1925-26	3	1 1	2 0	0 2 2	10	58
1926-27 . . . . .	..	3	..	..	4 1	1	2 1	0 1 1	16	70
1927-28 . . . . .	..	3	1	1 1	7 1	2	6 1	0 1 1	25	85
1928-29 . . . . .	..	3	1	1 1	92 1	2	10 2	1 1 2	86	122

TABLE XXXVII.—Imports of coloured goods from Holland.

	. IN MILLIONS OF YARDS.				IN Rs. LAKHS.
	Lungis.	Shirtings	Unspec- fied.	TOTAL	TOTAL.
1899-1900	5	..	..	5	8
1900-01	6	..	1	7	13
1901-02	10	..	..	10	18
1902-03	8	..	1	9	15
1903-04	9	..	..	9	19
1904-05	8	..	..	9	22
1905-06	9	..	1	10	23
1906-07	11	..	..	11	28
1907-08	9	..	..	10	26
1908-09	13	..	1	14	40
1909-10	13	..	1	14	37
1910-11	13	..	1	14	42
1911-12	12	..	2	14	48
1912-13	14	..	3	17	51
1913-14	14	..	2	16	51
1914-15	12	..	1	13	40
1915-16	13	..	1	14	46
1916-17	10	..	1	11	45
1917-18	4	..	1	5	26
1918-19	1	..	..	1	7
1919-20	3	..	..	3	27
1920-21	7	..	1	8	79
1921-22	6	..	1	8	53
1922-23	7	..	3	10	67
1923-24	4	..	2	16	44
1924-25	4	1	1	6	40
1925-26	6	2	2	10	63
1926-27	8	3	3	14	75
1927-28	7	3	2	12	61
1928-29	7	3	1	11	55

TABLE XXXVIII.--Imports of coloured goods from Japan.

P=printed, D=dyed, W=woven. Separately recorded from 1919-20.

	IN MILLIONS OF YARDS.									IN RS. LAKHS.
	Checks, Spots and Stripes.	Drills and Jeans.	Flannels and Flannelles.	Printz and Chintz.	Shirtings.	Twills.	Unspecifed.	Total (P D and W).	Total (Coloured).	TOTAL.
1914-15	..	..	..	..	..	..	1	..	1	..
1915-16	2	..	..	..	..	..	1	..	3	..
1916-17	4	4	..	..	2	..	12	..	22	..
1917-18	2	4	6	..	2	..	5	..	19	..
1918-19	2	4	4	1	2	1	7	..	21	..
	P D, W	P D W	P D W	P D W	P D W	P D W	P D W	P D W		
1919-20	..	0 0 2	0 1 0	..	0 0 1	0 0 1	1 2 3	2 2 6	10	63
1920-21	0 0 1	0 0 2	2 2 2	1 0 0	0 1 1	..	0 3 1	3 6 7	16	97
1921-22	0 0 2	0 0 1	..	..	0 1 0	..	0 1 0	0 2 3	5	21
1922-23	0 0 2	0 0 2	..	..	0 3 3	..	0 4 1	0 7 8	15	60
1923-24	0 0 2	0 1 3	1 1 2	..	0 4 5	..	0 4 1	1 10 13	24	89
1924-25	0 0 2	0 1 5	2 2 2	2 0 0	1 4 12	0 0 1	0 6 2	5 12 24	41	147
1925-26	0 0 2	0 0 12	2 2 2	3 1 0	1 5 21	0 0 3	2 8 2	8 18 44	70	211
1926-27	0 0 1	2 3 19	5 4 4	1 1 0	1 9 21	0 0 4	0 8 2	9 26 51	96	226
1927-28	0 2 1	11 7 20	5 4 4	1 1 0	3 6 15	1 0 10	1 10 1	22 30 51	103	263
1928-29	0 1 2	21 4 17	3 2 2	3 1 0	6 8 16	1 1 11	2 6 2	36 23 50	199	271
1929-30 (6 months)	0 0 2	21 3 17	1 1 1	2 0 0	7 7 6	1 0 5	0 3 0	32 14 32	78	..

Coloured Goods.

17. Table XXXII shows the imports under the various trade heads up to 1918-19 when the classification was revised and Tables XXXIII, XXXIV and XXXV the imports for the following ten years. Tables XXXVI, XXXVII and XXXVIII show imports from the principal sources of supply other than the United Kingdom. As in other branches of the piece-goods trade the United Kingdom throughout the thirty-year period has been the principal source of supply, though Holland has been a steady if small contributor. Imports from Japan were on a much smaller scale during and immediately after the war than imports of Japanese grey goods but more attention has been paid by the Japanese industry to the coloured branch of the trade during the last five years. Imports from Italy were first of appreciable magnitude in 1913-14. They fell away in the latter part of the war period to be renewed only in the last five years. The diversity of her trade in the past two years even more than its magnitude suggests that Italy is a competitor to be taken seriously in the near future.

In investigating the nature and extent of competition it will be most convenient to take in turn each of the heads under which production is recorded. Detailed figures for the whole of India are not available but, as explained in paragraph 8, I have obtained three-years' figures for the Bombay Presidency which have already been reproduced in Table IV. In these three years respectively 87, 85 and 76 per cent of the total output of coloured goods were from mills in the Bombay Presidency and it is unlikely that, by neglecting the output of mills elsewhere in India, any conclusions that may be drawn as to the extent of competition will be vitiated. This is borne out by the tables given in paragraph 47 of the Tariff Board's report which show that the ratio of each group to the total of coloured goods for 1924-25 and 1925-26 was roughly the same in Bombay City and in the whole of India. The principal variation from general practice is in Ahmedabad where about 90 per cent. of the coloured output consists of *saris* and *susis*.

A comparison of figures of production and import of coloured goods is much more difficult than in the case of greys as there is much more difference in the two systems of classification. The mill-classification is as follows:—

Chadars.	Dyed greys.
Lungis and Dhutis.	Striped Saris and Susis.
Drills and Jeans.	Cotton tweeds and checks.
Others.	

It will be convenient first to compare this with the import classification in force up to 1919-20, *i.e.*, before the heads were divided into "Printed", "dyed" and "woven". It was as follows:—

Chadars.	Cambrics, Madapollams, Muslins, Mulls and Jaco- nets.
Dhutis, Saris, Scarves and Lungis.	
Checks, Spots and Stripes.	Shirtings.
Drills and Jeans.	Printz and Chintz.
Twills.	Unspecified.

The import of coloured chadars has always been negligible. Printz and Chintz formed a class not in competition with goods of which the pattern is woven, and as there is no printing industry connected with the Indian mills this import head may be left out of account. Cambrics, etc., constitute a group of fine goods not manufactured on an appreciable scale in India and this import head may also be ignored. The head dhutis, etc., was subsequently divided into "Dhutis and Lungis" and "Saris and Scarves". The former corresponds to the same group in the production returns while "Saris and Scarves" (other than dyed) must be set against "Saris and Susis". The susi group also includes woven coloured "shirtings", "Checks, spots and stripes" and twills and, as printed goods in these three classes compete with woven goods, these must also be included as competing with "Saris and Susis". Dyed "shirtings", "twills", "checks, spots and stripes" and "drills and jeans" in the import returns must be compared with "Dyed greys", and printed and woven "drills and jeans" with the production head coloured "drills and jeans". "Cotton Tweeds and Checks" correspond roughly to the more recent import head "Coatings and Trouserings". The other new import heads "Flannels and flannellettes" must be set against "Others" in the production returns, and "woven lungis and sarongs" must be added to the "dhuti and lungi" head. "Sateens and Italians" and "Velvets and Velveteens" among the new heads are not in competition with local manufacture.

The following Table gives a detailed comparison for the year 1927-28:—

TABLE XXXIX.—*Production of coloured goods in the Bombay Presidency and Imports into India in 1927-28 in millions of yards.*

Heading in the returns of production.	Production	Imports.	Heading in the Import returns.
Chadars	24	..	Chadars.
Lungis and dhotis . . . . .	..	5	Lungis and Dhotis, Printed.
		9	Lungis, Dhotis and Sarongs, Woven.
	24	6	Lungis and Sarongs, Printed and Woven.
		20	
Drills and Jeans . . . . .	..	31	Drills and Jeans, Printed.
	62	23	Drills and Jeans, Woven.
		54	
Dyed greys . . . . .	..	39	Shirtings
		10	Checks, Spots and Stripes
		3	Saris and Scarves
		13	Twills
	56	10	Drills and Jeans
		75	
Striped Saris and sushs . . . . .	..	30	Saris and Scarves, Printed.
		5	Saris and Scarves, Woven.
		2	Checks, Spots and Stripes, Printed.
		7	Checks, Spots and Stripes, Woven.
		15	Twills, Printed.
		12	Twills, Woven.
		29	Shirtings, Printed.
		20	Shirtings, Woven.
	281	120	
Cotton, Tweeds and Checks	90	9	Coatings and Trouserings.
Others . . . . .	..	12	Flannel and Flannelettes, Printed.
		4	Flannel and Flannelettes, Woven.
		4	Flannel and Flannelettes, Dyed.
		9	Unspecified, Printed.
		23	Unspecified, Dyed.
		17	Unspecified, Woven.
	42	74	
Not produced in India . . . . .	..	23	Cambrics, etc., Printed.
		24	Cambrics, etc., Dyed.
		3	Cambrics, etc., Woven.
		68	Prints and Chintz.
		2	Prints and Chintz, Dyed.
		5	Sateens, Printed.
		25	Sateens and Itallans, Dyed.
		2	Velvet and Velveteens.
		152	
Total production in the Bombay Presidency.	579	504	Total Imports into India.

Dhuts and Lungis.—The coloured dhuti can hardly be differentiated from the lungis, and coloured goods of this class are mainly produced for the Burma market, with a certain small consumption in Bengal. Of the 1927-28 imports 17 milyards out of 20 went to Rangoon, and the remainder to Calcutta. Holland and the United Kingdom supplied 9 milyards each, and the rest, though shipped from the Straits and Netherlands East Indies, were produced in one or other of those countries. The total export of coloured goods by sea from Bombay to Rangoon amounted to 16 milyards and even if the whole of this were lungis, which is improbable, it is clear that the Bombay trade is not suffering from competition in the Bengal market. In Burma the cotton lungis is in competition with the more expensive but more durable silk lungis. There has been no appreciable change in the trade in the past three years.

Drills and Jeans.—As will be seen from Tables XXXII, XXXIII and XXXV there has been a very considerable increase in the imports of printed and woven drills and jeans in the past ten years. Three years' figures for production in the Bombay Presidency suggest clearly that the local output is suffering from competition, though in the absence of earlier figures it is not possible to say how long it has been falling. The Tariff Board quoted 99 and 88 milyards as the output in All-India in 1924-25 and 1925-26. The Bombay Presidency figures for the next three years are 86, 62 and 34 milyards respectively, while imports (woven and printed) for the same five years were 21, 29, 38, 54 and 50 milyards respectively. The failure of the Indian mills to retain command of this trade is the more striking in the face of their relative success with grey drills, and is due to the fact that coloured drills are, as a rule, considerably finer than grey drills. The Japanese import figures for the five years were 6, 12, 21, 31 and 38 milyards. Their first appearance in the printed drill trade was in 1926-27 and such has been their success that imports of printed drills from the United Kingdom fell from 20 milyards in 1927-28 to 11 in 1928-29 and 3 in the first half of 1929-30.

Dyed greys.—The recent progress of trade in these goods is exhibited in the following table:—

TABLE XL.—Imports and Production of Dyed goods.

	IMPORTS.						Production in India.
	Shirts.	Checks, Spots and Stripes.	Saris and Scarves.	Twills.	Drills and Jeans.	Total Imports of competing dyed goods.	
1924-25	31	8	1	10	4	54	36
1925-26	29	6	1	10	3	49	28
1926-27	40	10	3	10	7	70	42
1927-28	39	10	3	13	10	75	56
1928-29	37	11	3	18	7	76	36

N B—Figures for the first two years are for All-India and for the last three for Bombay Presidency only.

A reference to Table XXXVIII will show the extent to which Japan has participated in the increased imports under these heads. The United Kingdom trade has remained fairly steady and the advance of Indian production appears only to have been checked by the labour troubles of 1928-29. The imports of shirtings consist almost entirely, so far as the United Kingdom contribution is concerned, of the finer qualities. The figures for the first half of the current year credit Japan with 7 milyards of dyed shirtings as against 8 milyards in the whole of 1928-29 and it is more than probable that they will prove as successful in this line as in grey shirtings.

Striped Saris and Susis.—This somewhat indefinite head is less easy to deal with than some others. The word susi is applied somewhat vaguely to a large variety of cloths and it would require a prolonged enquiry from mill to mill to find out exactly what cloth is returned under this head and what under the head "Others". One point, however, is clear: the head includes a considerable quantity of bleached striped shirtings. In Bombay Island where the Millowners claim that some 80 to 90 milyards of cloth is bleached annually it seems tolerably certain that the greater part of it consists of goods of this class, and it will probably not be far from the truth if we assume that in 1927-28 60 milyards of striped white shirtings were included in the Bombay output of susis. In Ahmedabad, where bleaching is much cheaper, the proportion must be still higher and may be taken for 1927-28 as 90 milyards out of a total of 121 for "Saris and susis". Allowing 15 milyards for other mills we obtain as the total Indian output of striped white shirtings in 1927-28 about 165 milyards. As in the case of striped drills and jeans, the Japanese industry at first tried direct competition with the woven Indian product but after a certain initial success they have made no head-way for the past three years and are turning their attention to the printed shirting, and for the first half of 1929-30 imports from Japan of printed and woven shirtings respectively were 7 and 6 milyards as compared with 6 and 16 in the complete year 1928-29. The United Kingdom trade, which again is restricted mainly to the fine qualities, is fairly steady. The coarser printed shirtings are sufficiently new to the Indian market not to have affected the local output seriously yet but they are evidently being successful and constitute a definite danger. In woven striped twills there has been a recent rapid increase in Japanese imports, and this class of goods also competes with the local striped susi. These are not imported from the United Kingdom. Of the mill output of "checks, spots and stripes" and of the type of "sari and scarf" included under this head there is not sufficient information to form any very definite opinion as to the extent of competition. All that can be said is that there is no noticeable increase in imports.

Cotton Tweeds and Checks.—Imported coatings and trouserings to some degree meet the same demand as these cloths, but their quantity is small and there is no serious competition in the qualities made by the Indian mills.

CHAPTER V.

The Severity of External Competition.

Statistical Evidence.

18. One measure of the severity of competition is the rate at which imports of any particular class of goods are increasing. The figures discussed in the previous chapter show a startling increase in the imports of grey shirtings, particularly in those of apparent counts of 25s and above. There has also been a very marked increase in imports of heavy shirtings of apparent counts 18s which are probably woven from yarns in the neighbourhood of 22s and 24s. Heavy imported sheetings are being sold in Bombay at particularly low prices, but they do not appear to be arriving in any considerable quantity. Imports of grey drills and jeans and of fine grey goods appear to be on the decline so that the only statistical evidence of severe competition in plain grey goods relates to coarse and fine shirtings. In these classes, which constitute more than three-quarters of the trade in greys, competition is increasing rapidly. The total imports of dhutis have not increased in recent years whereas Indian production was increasing rapidly until it received a set-back owing to labour troubles in Bombay. Only a small proportion of imported dhutis are of apparent counts below 30s and despite the entry of Japan in the dhuti trade there is no indication of any recent increase in imports of dhutis below 40s.

Local production of plain white goods is very small compared with the volume of imports and there is practically no information regarding its nature. All that can be said is that it must consist mainly of coarse goods the imports of which have not increased recently. In fact the most noticeable recent increase in the white trade is in fine mulls which are not produced in India.

The difficulty of making a statistical comparison between imports and local production of coloured goods has already been emphasised but in the following items in the import list there has been a notable increase in the past three years:—printed drills and woven twills from Japan and printed flannellettes and twills from Italy. Competition is severe under all these heads and particularly so in printed drills. Imports of these have quite recently increased very rapidly and the prices at which they are sold are surprisingly low. They consist of a fine white cloth of apparent counts about 34s with printed stripes in a large variety of patterns. They compete with printed and woven coloured shirtings and are having a great success, I understand, not only in India but also in such distant markets as Egypt. There have been no very striking advances in the import of other lines of coloured goods but the

extension of the import trade from Italy and Japan to new classes of goods in the last few years is too noticeable to be passed over in silence, even though the quantities involved have hitherto been small. The only noteworthy increase in imports of coloured goods from the United Kingdom in the last few years is in dyed twills, mostly of a fine texture.

Indirect Evidence—General.

19. An enquiry into the severity of competition, if it is to be complete, must involve a comparison between the price of imported goods and the cost of producing identical goods in India. The Tariff Board were not able to obtain in this respect any satisfactory direct evidence which they could subject to critical examination, and I could hardly hope to succeed where they failed. It is well-nigh impossible to select two cloths, one imported and one manufactured in India, which are so nearly identical that any useful deductions can be made from the prices at which they are sold since, as a rule, there are bound to be differences of finish and quality which will obscure the issue. Moreover, even if such a selection could be made, the severity of competition could not be gauged without some knowledge of the profits that were being made on each cloth. In Table XXIX of their Report the Tariff Board gave the results of analyses of certain imported cloths, together with the Bombay Millowners' estimate of the price at which they could afford to manufacture and sell each. It was admitted, however, that the estimates were far from reliable and I did not consider that, within the time at my disposal, it would be worthwhile instituting similar enquiries. Nor were the Millowners any more able now than in 1926 to say "such and such are the imported cloths that are being sold at such and such prices thereby rendering such and such of our products unsaleable". It is indeed not to be expected that they could furnish such definite information except in a very few particular instances. The manufacturer first feels competition in a particular cloth when he finds sales are falling off, but it does not follow that he can immediately say precisely what cloth is taking its place.

I have compared the prices quoted in Table XXIX of the Tariff Board's Report with the prices shown in the Special Record for cloths of similar specifications. The comparison shows that prices in August 1929 and in October 1926 were practically identical and, as the prices of raw cotton in the first eight months of 1929 were not higher than in the first nine months of 1926, it does not appear that Japanese prices have altered greatly in the past three years except in tune with fluctuations in the price of raw cotton. The severity of competition cannot therefore have changed greatly if it be measured by the margin by which imported goods are underselling Indian products. There has been an appreciable fall in the prices both of imported and of local goods between August and the present time (November) owing to the declining price of raw cotton.

Indirect Evidence—Grey Goods.

20. The rate at which the imports of the various classes of goods are increasing has already been considered group by group. There are certain features, however, common to more than one group which deserve special emphasis since they throw a little indirect light on the severity of competition. The first is the fact that for all grey goods, no matter what the type of weave may be, there appears to be at each port a limiting price below which no considerable volume of imported goods is sold. This limiting price in Bombay was about 14 annas per pound in August. Now Bombay should have a definite advantage in the cost of raw material, an advantage which should be fairly constant for all coarse goods. Bombay also has an 11 per cent. duty in her favour. It seems a reasonable inference that Japan, whence come the cheapest imported goods, has certain countervailing advantages which will more than balance these two factors only when the price exceeds this limit. Further it was found that at the other great ports, although indential Japanese goods fetch the same prices as in Bombay, the limiting price was slightly lower, roughly $13\frac{1}{2}$ annas per pound. In the other ports, however, Bombay's advantages are reduced by the cost of rail or sea freight from Bombay. The inference is therefore that Japan's countervailing advantages are less with a $13\frac{1}{2}$ anna cloth than with a 14 anna cloth or, in other words, that the more expensive the cloth per unit of weight the more does the balance swing in favour of Japan. It may be contended that it is dangerous to generalise from two isolated facts but there are other features which bear out the suggestion that Japan's advantage increases with the price. There is, first, the fact that though Japan finds it profitable to ship heavy shirtings of apparent counts 18s to 20s, of which the price is from 15 to 16 annas a pound, and light shirtings of apparent counts 25s to 30s, of which the price varies from $14\frac{1}{2}$ annas upwards in Bombay, she ships no shirtings to India of apparent counts 21s to 24s while Bombay can put these on the market at 13 annas and less. Again, Japan cannot compete apparently with a $13\frac{1}{2}$ anna heavy Bombay grey drill, while in $15\frac{1}{2}$ anna woven striped drills imports from Japan are numerous. Furthermore, it is noteworthy that many of the most successful of the Japanese lines consist of heavily sized goods. Now the substitution of a heavily sized fine yarn for a lightly sized coarse yarn means a saving on the cost of raw material and an increase in the cost of spinning and weaving. It is, therefore, again legitimate to infer that Japan is at a greater advantage in respect of spinning and weaving when finer counts are used. There seem to be, therefore, strong reasons for believing that the severity of competition depends, not on the nature of the weave, nor even on the count of the yarn employed except in so far as the fineness of the yarn affects the price. It would appear to depend directly on the price per unit of weight and to increase with it. This does not of course mean that it is necessarily proportional to the price but merely that of any two Japanese grey cloths the more expensive is likely to be the one

with which the Indian mills will have the greatest difficulty in competing.

Indirect Evidence—Coloured Goods.

21. While the nature of the weave does not appear to affect materially the relation between prices of Japanese grey goods and the cost of production of similar goods in India it is natural that for coloured goods, in the production of which other processes besides spinning, weaving and finishing are employed, the relation should be different. There are still, however, limiting prices in the various classes below which Japanese products are unable to compete. For example, the lowest price at which Japanese dyed goods are sold in Bombay is about 17 annas a pound and in other ports about 16½ annas a pound, whereas certain Bombay dyed cloths sell for a little as 14 annas a pound. The woven coloured cloth which competes with Indian production consists largely of striped white or grey cloth and, where the body of the cloth is grey, prices do not differ very greatly from those of plain grey cloth. Thus, grey drills with a woven coloured stripe are imported into Bombay in large quantities and sold at 15½ annas a pound. The apparent count of these drills is generally 17s or 18s while the apparent count of the heavy grey drills with which Japan is unable to compete is generally from 11s to 14s. It is again legitimate to infer that the extent to which Japan is able to undersell the Indian mills increases with the price per pound, though it would appear that competition in colour-striped greys is more severe than in dyed goods but less severe than in plain greys. Since printed goods are not made in the Indian mills a direct comparison of their prices is impossible.

Competition may become so severe that the local industry ceases to produce a particular type of article and it is naturally not easy to say how far the scope and variety of manufacture in India is being restricted by external competition. The Bombay Mill-owners' Association very kindly placed at my disposal the lengthy catalogue of samples, consisting very largely of coloured goods, which were supplied to Messrs. Meek and Maloney for the purpose of their Trade Mission and these samples represented not merely goods which are sold on the Indian market but also goods which the Mills were prepared to manufacture for export. The catalogue shows dimensions, weight and prices but does not give the reed and pick of each cloth. It is therefore impossible to arrive at any definite conclusion regarding the yarns used in their production but the fact that only a small fraction of the samples are quoted at a higher price than 25 annas a pound suggests that the proportions of coloured cloth woven from counts above 30s do not differ very greatly from the proportions of grey cloth produced in these qualities. It is certain that coloured cloth which the Mills can sell at 25 annas a pound or less cannot include very much in which yarns above 30s have been used and it seems likely that above this figure a range of qualities is reached in which the lack of suitable raw cotton begins to vie with external competition as a deterrent on production.

Indirect Competition.

22. It is impossible in an enquiry of this nature to neglect altogether the effect, on the prices of the types of goods produced in India, of imports of goods of other types. Some of the more obvious effects of indirect competition have already been referred to. For example, attention has been called to the imports of cloth bearing a considerable amount of sizing in competition with a less heavily sized cloth woven from coarser yarns. The competition between woven and printed goods has also been referred to. These, however, are merely examples of competing methods of producing what is virtually the same article. We have also to consider the indirect competition of goods of different quality, a matter of special importance if a scheme of protection should be contemplated since there is always the possibility that a rise in the price of an imported product may not drive the purchaser to a local product of the same kind but rather to an imported product of a slightly different kind. A good example of this type of indirect competition is the supplanting of woven striped shirtings by fine printed drills. Conversely, in the absence of protection the process may already have developed to a considerable degree. Area for area a fine cloth may be less expensive than a coarse cloth and a purchaser who requires a piece of cloth for a particular purpose generally requires a definite area and not a definite weight. Thus he may buy the finer cloth merely because it is cheaper whereas he would prefer the coarse cloth, if he could get it at the same price, because it is more durable and better suited to his purpose. If, therefore, it should be decided at any time to impose a tariff whose incidence is heavy on goods which can be produced in unlimited quantities from Indian cotton and light on goods which cannot be so produced it is desirable that the incidence of duty on the range of goods between the two classes should be shaded off imperceptibly so as to minimise this form of indirect competition. Nor must it be forgotten that a general movement of prices over any considerable part of the total range of piece-goods is apt to reverberate over the most distant parts of the range. It is impossible, of course, to make any sort of estimate of effects of this nature and the most that can be done is merely to mention them in passing. A word is also necessary in regard to other textiles. Both silk and artificial silk-yarns, and particularly the latter, are employed in India in small quantities in the coloured stripes of cotton goods or in the borders of goods of the cotton dhuti class. Here of course there is no question of competition: their use adds to the attractiveness of the cotton cloth and helps to sell it; but some of the finer classes of cotton cloth, particularly saris and lungis, are in direct competition with silk goods of the same class. Small imports of artificial silk saris have been noticed but they are sold in competition with silk and not with cotton saris. There is a growing import of mixed cotton and artificial silk fabrics but these compete either with silk goods or with the finer qualities of cotton brocades and fancies such as are not produced in India at present.

CHAPTER VI.

The Tariff on piece-goods: the Administrative Aspect.

General.

23. In the Report of the Taxation Enquiry Committee, 1926, will be found a strong recommendation in favour of the extension of specific duties. In support of this recommendation the Committee quoted from a book entitled "Tariffs: A Study in Method" by T. E. G. Gregory, Cassel Reader in Commerce in the University of London. In the preface to that work the author deploras the lack of attention paid to the technical aspects of the subject by economic writers on tariff questions and admits that his first idea is to fill that gap. It is to be regretted that lack of personal experience in the details of Customs administration has led him astray on certain fundamental issues, and greatly depreciated the value of his careful analysis of the subject. The following extract from the preface summarises his conclusions on the relative merits of specific and *ad valorem* duties in their application to the principle of protection in the United Kingdom:—

"The most casual reading of the book will be sufficient to justify the statement that there is no stage in the chain of events which leads from the legislative inception of the tariff down to the practical administration of its details which does not reveal unsuspected difficulties of choice between alternatives. The resolution of these difficulties is made easier by a consideration of the development of the tariff in the recent past. Without in any way committing one self to the protectionist point of view, it is clear that if the United Kingdom ever adopts the principle of protection there are certain solutions which, on technical grounds, are not acceptable. Thus, the choice between specific and *ad valorem* duties has been, I venture to think, definitely determined in favour of the former. In the same way, there is simply no question as to the necessity for specialisation or differentiation between different grades of the same commodity. The naive idea of the uniform rate on simple categories, such as the "Tariff Reformers" have so long been advocating, is quite untenable in view of the historical evolution through which the tariffs of other countries have gone. In the same way, I have tried to show that the demand for a "Scientific Tariff" involves very difficult questions of political and administrative expediency which cannot be shirked without possible disappointment to all concerned."

I quote this passage at length as it is as pertinent to my enquiry as to the general problem of protection in the United Kingdom. I feel convinced, however, that had the author had more experience of the actual working of both forms of duty he would not have committed himself to so definite a conclusion as to the relative suitability of the two systems. Their respective merits are dis-

cussed in Chapter V in which he deals with "the Tariff Rate". He defines an *ad valorem* duty in the following terms:—

"The *ad valorem* duty is, on the other hand, as the name implies, essentially a duty based upon the value of the commodity made dutiable under the tariff, and represents, therefore, a percentage on that value per unit of the commodity. The *ad valorem* duty, therefore, does not allow escape from the necessity of choosing some definite physical unit—it is obvious that, as soon as we ask, upon what value the duty is assessed we must get some such answer as "value per ton, value per square yard," and so on

It follows from what has just been said that it is always possible to express an *ad valorem* duty in terms of specific duty and *vice versa*. Thus, if the value of an article is £10 per ton, a duty of 10 per cent. *ad valorem* may be expressed as a specific duty of £1 per ton; and a specific duty, of £1 per ton is equivalent to a 10 per cent. *ad valorem* duty."

No Customs officer with practical experience would accept either this definition or the sweeping generalisations which the author derives from it. One has only to enquire what physical units could be selected in order to assess to *ad valorem* duty a consignment of silk frocks of various designs or a handful of diamonds of which the value per carat will vary with the number of carats in each as well as with the purity. Obviously no such selection could be made and yet *ad valorem* assessments of this nature are being made daily all over the world. It is true that cotton piece-goods constitute a commodity to which the generalisations would apply, since the ordinary mode of assessment involves the ascertainment of the market value of a single piece of cloth and the multiplication of that value by the number of pieces of the same kind. I refer to this matter, however, first in order to contest Mr. Gregory's inference that *ad valorem* duties involve all the labour of ascertainment of quantity with the additional labour of valuation and, second, because it leads him to a further *obiter dictum* in the following terms:—

"This brings one to the second administrative advantage which the specific duty has over the *ad valorem* duty. Any form of the latter involves a process of estimating what value should attach to the commodity in question. And it must be confessed that whatever process of valuation be chosen, the difficulties attending it are greater than those which present themselves when the activities of the customs officials are confined to the determination of physical attributes."

As a Customs official I am not prepared to make the confession which Mr. Gregory demands. On the contrary, I am prepared to assert unhesitatingly that, in proportion to the number of assessments made respectively on quantity and on value, there are certainly no less disputes in the Indian Custom Houses in respect of the former than of the latter. From the point of view of the

assessing officer the "tariff value" system necessitates precisely the same checks as a specific duty. The Indian Tariff now contains nearly 500 items for which "tariff values" are fixed by notification. Nearly all of these items are the result of proposals made by the Custom Houses to simplify their work, and it may be taken as highly probable that, if any item in the tariff is still being assessed on its "real value", the men who have to make the assessments are satisfied that assessment on quantity would increase rather than decrease their difficulties. A number of attempts to evolve a scheme of tariff values (or specific duties) on cotton piece-goods have been made in the past. The fact that none of the suggestions made has been considered likely to prove simpler than the existing system does not prove that the problem is insoluble, but it effectually disproves Mr. Gregory's statement that any form of assessment on quantity must necessarily be simpler than an assessment on value. I have devoted some space to Mr. Gregory's views partly because the Government of India already have before them a definite recommendation which is very largely based thereon. My chief reason, however, is that those views undoubtedly command wide acceptance in economic circles and I should not feel justified in making detailed recommendations in defiance of them without some attempt to criticise them on general as well as on special grounds. In support of my contentions I propose to discuss the methods which are or can be adopted for the ascertainment of value and of quantity with particular reference to the assessment of cotton piece-goods.

Determination of value.

24. The importer of any goods imported into British India is required to make entry thereof in the prescribed form. This form includes, among other particulars, a declaration embodying such information as will enable the duty on the goods to be calculated forthwith. The law further provides that if the goods are found on examination to correspond with the declaration they shall be assessed accordingly. The procedure adopted differs slightly from port to port. In Calcutta and Rangoon for many years past it has usually been found convenient to complete the assessment provisionally before the goods are examined so that they can be immediately removed if the results of the examination are satisfactory. In Bombay it was formerly more usual to examine the consignment before the bill-of-entry was presented to the assessing appraiser but the Calcutta procedure is now being adopted there. As will appear from what follows, it does not matter greatly in what order the operations are performed and the choice between the two modes of procedure is determined largely by the situation of the Custom House with respect to the wharves at which the goods are landed.

The varieties of piece-goods are so great that the mere specification of the dimensions and trade description of a piece of cloth do not suffice to determine its value, and for convenience it is usual

for every bill-of-entry for piece-goods to be accompanied by shipment-samples of the goods to which it relates. The invoice relating to the goods has also to be produced with the bill-of-entry and the Customs Department is invested with powers to demand such other documents as may bear on the assessment. Assuming, for the moment, that the shipment-sample is genuine and that the quantities are correctly stated in the invoice the appraiser has to decide whether the rate of value per piece has been correctly declared. It may be observed here that under the existing law all piece-goods for which there is a regular wholesale market at the port are assessed on the market price less duty. The assessment of piece-goods for which no such market exists will be dealt with later. The appraiser has at his disposal a number of different ways of determining whether the market rate is correctly declared. He can rely on his own expert knowledge of goods and prices or he may obtain independent expert opinion. He can sometimes get evidence of the price at which the consignment itself has been sold or, more frequently, of the prices at which identical goods are being or have been sold. He can form an opinion from the current margin of difference between invoice prices and market rates and, in the last resort, the Collector of Customs, if he thinks fit, can exercise his right of pre-emption and take over the goods at their declared value. When dealing with staple goods of well-known brands it is clear that in the majority of instances the necessary checks on the declaration of value can be made immediately on presentation of the bill-of-entry in the Custom House. Under the existing system although each bill is checked by a senior expert appraiser, it is not found that more than one declaration in a hundred leads to any dispute. In fact one of the more frequent causes of dispute arises from the employment by up-country merchants of clearing agents who are not conversant with the piece-goods trade. The number of up-country merchants who import direct is small but growing, and it is generally with their first few consignments that trouble arises owing to their failure to realise that the law requires the declaration of the rate of value ruling at the port at the time of entry. Once this principle is grasped there is rarely any further dispute.

When the rate of value has been settled on the basis of the shipment-sample two things remain to be done under the Calcutta procedure. The sample has to be compared with the goods themselves and the dimensions and number of pieces stated in the invoice have to be verified. It is a universal principle of Customs work that it is unnecessary to check every detail of every consignment. Customs administration would otherwise be intolerable and unworkable. A certain percentage, therefore, of shipment-samples is compared with the goods themselves. If the goods are in packing-cases these can be opened without risk of damage and whole pieces of cloth can be removed for comparison. If the goods are baled it is usual to try to avoid the depreciation of value consequent on the removal of baling-hoops, and merely to expose part of the contents by opening the gunny covering at one end. The method of checking quantities will be referred to in a subse-

quent section. It is necessary first to consider the determination of value when no local wholesale market rate is ascertainable.

Under Section 30 of the Indian Sea Customs Act if the price at which "goods of the like kind and quality are sold or are capable of being sold at the time and place of importation" cannot be ascertained the value for the purpose of *ad valorem* duty is the cost "at which goods of the like kind and quality could be delivered at such place". If the goods have been imported in pursuance of a normal competitive transaction this will be the same as the c.i.f. price of the goods themselves *plus* landing and clearing charges. Thus, if the transaction is a normal one the goods will be assessed on what is generally known as the "landed cost" which is the c.i.f. invoice price *plus* a small fixed percentage (in Calcutta $\frac{1}{2}$ per cent.) for landing and clearing charges. The appraiser has then three duties to perform. He has to satisfy himself as before that the goods correspond to the specification of them contained in the invoice and in the declaration; he has to be satisfied that the invoice relates to a normal competitive transaction and, finally, that it contains a genuine statement of the price paid for the goods. The type of transaction which is not regarded as normal and competitive is, for example, a shipment of goods from a principal to his agent or other subsidiary where the price quoted may be influenced by the method of accounting adopted between the parties and where the invoice is, strictly speaking, only a consignment note and not evidence of an outright sale. Such transactions are a fruitful source of difficulty to appraisers but fortunately are so very unusual in the cotton piece-goods trade as to make it unnecessary to take them into account in considering the merits of rival modes of assessment.

If the transaction is normal and competitive the genuineness of the price quoted can be tested in various ways. Even when there is no regular wholesale price ascertainable owing to the infrequency with which the goods come on the market it is almost invariably possible for the appraiser, by methods similar to those already discussed, to form an idea of the price which the goods are likely to fetch and thereby to detect anything substantial in the way of under-valuation. He can generally obtain evidence from a bank regarding the exact sum which has changed hands and if, after all these checks, he suspects the existence of an undisclosed payment there is still, as a last resort, the right of pre-emption already mentioned.

Determination of Quantity.

25. It has already been stated that the *ad valorem* assessment on market value of cotton piece-goods involves the determination of the price of each piece and of the number of pieces in the consignment. Where the assessment is made on landed cost this is not strictly necessary. If the appraiser is satisfied that the price declared is a genuine competitive price for the consignment, its

exact contents are immaterial. The great majority of piece-goods, however, are assessed on their market value and a percentage check is necessary on the number of pieces and on the declared size of each on which the price per piece must depend. If the goods are packed in cases it is a simple matter to open an occasional case and check the contents but the opening up of goods baled under pressure is a far more serious matter. It may well depreciate the value of the contents by as much as ten per cent or even more and, accordingly, every effort is made to avoid the necessity of cutting baling hoops. As has already been stated the removal of the outer covering from one end of the bale is usually sufficient to enable the shipment-sample to be compared and a fair idea can often be obtained in this way of the dimensions of individual pieces and their number. The best evidence of quantity, however, and the simplest to obtain is usually derived indirectly from evidence of value. If the corroborative evidence of value, the bank draft, the indent, the sale note, all confirm the price stated in the invoice it may be inferred that the particulars of quantity given in the invoice are also correct. In other words there is always a strong presumption that the importer is not getting more goods than he is paying for. Mr. Gregory is very far from the truth when he suggests that an *ad valorem* duty does not lessen the extent to which physical examination of goods is necessary. In fact instances could be quoted, notably coal and timber, where the only practicable method of checking declarations of quantity is to obtain evidence of the price at which the consignment has been sold.

It must be particularly observed, however, that this method of checking quantities is only applicable to quantities which form the basis of price. For example if it is proved that an importer has paid Rs. 1,000 for 100 pieces of grey cloth 36" by 40 yards, there is a very strong presumption that there are 4,000 square yards of cloth in the consignment, but if the cloth is of a 12 lb. "standard" weight, *i.e.* with an allowable shortage of half-a-pound in the weight of each piece the total weight may be anything from 1,150 to 1,200 pounds. It may further be noted that it is possible to manufacture fairly accurately to specified dimensions and that actual dimensions will not vary appreciably from time to time, whereas there will almost inevitably be variations in weight from piece to piece and, in each piece, from time to time. Unless, therefore, the goods are sold by weight, a practice common in certain branches of the trade in India but practically unknown in the import trade, indirect evidence of value will be of no assistance in the determination of weight beyond raising suspicion when there is a considerable misdeclaration of quantity. With a tariff based on weight the practice of selling on weight might be evolved. It would then have to be decided whether to assess on "selling" weights, *i.e.* nominal weights accepted as between buyer and seller as a basis for price, or on actual weights. If the first method were adopted physical tests would have to be confined to seeing that the declared nominal weights did not differ from

the average weights ascertained in "check weighment" by more than a prescribed percentage. For baled goods check weighment of individual pieces would be impracticable and whole bales would have to be weighed with a prescribed scale of allowances for tare. An alternative method, and certainly the simplest for goods packed in bales would be to apply the tariff to the gross weight of bales and to make the allowance for tare when fixing the rate of duty. For cased goods this method would be unsuitable owing to the higher and more variable ratio of tare to gross weights. Moreover, while it would be reasonable to expect consignors to supply importers with the actual gross weight of bales even though they pay freight on measurement and not on weight, they could not be expected to put importers in a position to declare actual nett weights of cased goods.

A distinction is made in the Custom Houses between "weighment" cargo and "check-weighment" cargo. The latter is cargo, *e.g.* sugar, of which importers are expected to be able to declare accurate weights. A small percentage is "check-weighed" and if the ascertained average weight per unit does not differ from the declared weight by more than a prescribed percentage the latter is accepted as the basis for assessment. Importers of weighment cargo, *e.g.* betelnuts, are not expected to make an accurate declaration. A much larger percentage is therefore weighed and the result of weighment is made the basis of assessment. It follows that for piece-goods in cases assessment on actual weights would involve a higher standard of examination and much more labour than assessment on nominal weights. It has in fact been found necessary to apply the specific duty on paper to nominal weights though the system has not proved altogether satisfactory. None the less it is the only workable system for goods of which the weight is liable to fluctuate or the tare to be considerable and it must be given full consideration if for other reasons assessment on weight proves desirable.

Thus assessment on linear yardage or area would require no more examination than at present, provided steps were taken to verify the normality of the transaction and the genuineness and accuracy of the invoice in the same way as if the goods were to be assessed on landed cost. There would be a definite administrative gain in the avoidance of the checking of market values. Assessment on weight would inevitably require more physical examination, but as applied to baled goods the most suitable method would be assessment on actual gross weights for which no indirect corroboration of invoice quantities would be required. As applied to cased goods the most suitable basis would be nett nominal weights which would involve prescribing scales for the limits of error, and would also necessitate the verification of invoices. The only unit of assessment other than length, area or weight which needs to be considered is the piece. The Tariff of the China Maritime Customs assesses many classes of piece-goods at the rate of so much per piece not exceeding certain dimensions. The system is one of great simplicity and so far as the ascertain-

ment of quantity is concerned would present less difficulty even than assessment on linear or square yardage. It has, however, certain disadvantages in the matter of incidence which will be discussed in due course.

Determination of Class.

26. The present flat *ad valorem* rate, which is applicable to all cotton piece-goods, avoids the necessity of assigning a cloth to a particular category before the rate of duty on it can be fixed. The reference in the Press Communiqué of July 22nd to "specific duties" in the plural foreshadows the necessity of dividing cloth into different categories for duty purposes. The extent to which this may prove necessary if any change is made will be discussed later. For the moment the practical aspect of classification will be considered. The attributes of plain grey or white cloth which are capable of exact determination consist for practical purposes of the nature of the weave, the dimensions, the weight and the number of elementary threads in a prescribed area. Examples from other Tariffs of the way in which these are combined to form the basis of classification will be discussed later. For the moment we are concerned with the practical means of determining each. The distinction between a plain-woven cloth and a jean, drill or twill can be made at a glance from the shipment sample and to verify that goods are of one or other of these classes merely involves comparison of the sample in the manner already described. A classification depending only on the number of threads in a given area could be similarly verified by mere comparison of the shipment-sample, and would present no difficulty with goods shipped in cases. With baled goods which were near the limit of a class difficulty might arise. The shipment-sample would not furnish sufficient cloth to extend tests if the results of the first tests were doubtful and it might prove necessary to cut the hoops and open a bale for the removal of an actual piece from the consignment.

If the classification were based on the weight of a prescribed area the difficulties already described would be greatly increased in respect of what may be called "border line" cloths, that is to say cloths whose weight per area is very near the limit prescribed for a class. An example will make this clear. Let us suppose two classes at different rates of duty are prescribed as follows:—

	As. per lb.
(a) Exceeding 10 lbs. per 40 sq. yards	4
(b) Not exceeding 10 lbs. per 40 sq. yards	6

and let us consider the effect of these rates on a consignment of 100 pieces of cased goods, each 40 sq. yards, of the nominal weight of $10\frac{1}{4}$ lbs. per piece, of which a dozen pieces are selected for check-weighment. If both classes had been at the same rate of 5 annas per pound, it would make no serious difference to the amount of duty payable whether the average ascertained weight

were 9.95 or 10.05 pounds. In fact if nominal weights, with a 5 per cent. allowance for variations, were made the basis of assessment as already described, it would make no difference at all. But with the two classes suggested, there will be a difference between Rs. 250 and Rs. 375 if the classification is to depend on actual weights. If it is to depend on nominal weights the difficulty will still remain for, although it may not be worth a shipper's while for the sake of a few annas to select each piece with great care in order to obtain the full advantage of the admissible margin between nominal and actual weights, it will certainly be worth his while where so large an amount is at stake. It may further be observed that, even where there is no attempt to take undue advantage of the classification, fluctuations in weight due to moisture may result in assessment at the higher rate of goods which have been bought and sold on the basis of the lower rate. It has already been stated that the only satisfactory method of determining the weights of baled goods is to deal with gross weights. A classification based on the gross weights of a given area of cloth would constitute an unusual feature in a tariff and would still not obviate the difficulties arising in border-line cases. There would further be the temptation to put extraneous weight into bales in order to bring the goods into a lower-rated class. It may be observed here that almost all grey goods are imported in bales and almost all white and coloured goods in cases.

A word is necessary regarding classification by the count of the yarns from which cloth is woven. The method of calculating "apparent counts" has been described in Chapter I. It involves determining the number of threads in a unit of area and the weight of a unit area of the cloth, for which purpose a superficial comparison of the shipment-sample would be useless since it would not enable the appraiser to detect a slight difference, between the sample and the goods, in the amount of sizing used. The exact determination of actual counts is a matter of very great difficulty, so great indeed that in order to deal with the large number of disputes which formerly arose on this score, the Manchester Chamber of Commerce established a Testing House to deal with this and kindred matters. The number of samples handled last year was 22,000 which is sufficient evidence that even in Manchester no ready and convenient method of ascertaining actual counts is known. Any attempt to classify cloth here on the basis of actual counts would not only mean carrying out a large number of very delicate and troublesome tests, but would inevitably lead to a large number of discordant results and give rise to great dissatisfaction. In the tariffs of Austria and of the United States of America the items relating to cotton tissues are defined with reference to counts of yarn, and it would appear at first sight that these difficulties had been surmounted. Enquiries on this point were made a few years ago, however, from the Calcutta Custom House and from information supplied by the courtesy of the American Customs Department it appeared that no attempt is made to determine actual counts and that the classification is

based on the weight of the warp and weft yarns as they appear in the cloth without any allowance for sizing or for any other process affecting the weight. In the United States the count of the warp and the weft are taken separately and the average of the two is the required number for the purpose of the Tariff. The result must be practically identical with the result of a calculation based on the number of threads per unit area and the weight of the cloth. In the one case both the finished warp and the finished weft must lie within certain limits of fineness: in the other the mean fineness of the warp and weft must lie within the prescribed limits. It is not difficult to determine separately the apparent fineness of warp and weft. All that is necessary is to cut a small square of cloth to a standard size, separate and count the two sets of yarn and weigh them separately on a delicate balance, but the time and trouble involved must necessarily be greater than with the simple arithmetical calculation from which apparent counts can be derived.

We have so far considered only modes of classification which are equally applicable to grey, white or coloured cloth. The distinction between these and the various processes adopted to impart colour to cloth, while not adding greatly to the amount of examination necessary, will, of course, multiply the number of classes which have to be defined.

Incidence of Duty.

27. So far I have dealt only with the practical aspect of assessment, that is to say those questions which affect the expeditious clearance of goods and the convenience alike of the Customs Officer and of the importer or clearing agent. We have now to consider the interest of the manufacturer, the merchant and the exchequer, and the effect of a change in system on the course of trade and on the collection of revenue. If a tariff is framed with a definitely restrictive object in view the changes will naturally be designed to effect the desired restriction with the minimum loss to the revenue and without much consideration for any dislocation of trade that may ensue. The protective aspect of the Tariff will be considered subsequently. At the moment we are concerned merely with the common interest of the trade and the revenue and it is desirable that any change should be so designed as to avoid undue interference with the relative value of different brands of goods. A sudden increase of the duty on any particular brand of goods may render them practically unsaleable, whereas a corresponding decrease of the duty on another brand may not provide a sufficient stimulus to compensate the merchant for his loss and is even less likely to counterbalance the loss of revenue on the first brand. If, then, specified duties are to be adopted, piece-goods will have to be divided into classes such that it is possible to apply to each a rate of specific duty which will approximate to the existing *ad valorem* duty on all goods in the class. Or, to put it in another way, it must be possible to select for each class a unit of which the value for different goods in the class is practically uniform. If

I may repeat a phrase I have already quoted from Mr. Gregory's preface, "there is no question as to the necessity of specialisation or differentiation between different grades of the same commodity". The phrase must be qualified by the remark that the necessity, though imperative with specific duties, does not arise with *ad valorem* revenue duties. It may further be observed that this necessity increases very rapidly as the incidence of the specific duties is increased. It may matter very little if one brand is at 4 per cent and a rival brand at 6 per cent, but if it is a question of 8 and 12 per cent or 16 and 24 per cent it may make a world of difference. Where we have, as with grey shirtings or dhutis, a very wide range of goods over which there is a continuous series of qualities each differing in a very small degree from its neighbour it is easy to foresee the result of a division into classes each at a different rate of duty. In each class certain qualities of cloth will be unable to compete with very similar qualities in the next class which bear a lower rate of duty. The continuous range of qualities will thus be split up into a number of discrete groups between which there will be definite blank gaps. In the long run this might not affect the trade much but the immediate effect is bound to be serious for any brand of goods which bears a well-known trade mark and which is at present situated in the range of qualities at a point where a gap will occur after the change is made. The value of the trade mark, and many of them have considerable value and are very jealously guarded, would disappear. Thus, on the one hand, if classes be multiplied indefinitely the amount of testing required in the Custom House will be greatly increased while, on the other, the wider the range of each class the greater will be the dislocation of trade. Nor, even by an indefinite multiplication of classes, can anything approaching uniformity of value be secured unless the class definitions take account of all possible variations of the factors contributing to the quality of the cloth. The Bombay Millowners are not alone in their desire for a "scientific" tariff, but few of those who have expressed this desire have considered what it implies. The meaning to be attached to it must depend on the ends it is designed to serve. For revenue purposes a flat rate will be more scientific than a series of rates since it will throw open the trade equally to every variety of goods, and an *ad valorem* flat rate on goods of widely-varying value will clearly constitute a more scientific method of raising revenue than a flat specific rate. A "scientific" system of specific duties designed to secure the same effect as a single *ad valorem* duty must aim at expressing value as a function of the factors which contribute to it. A function of one variable can be displayed as a plain curve or graph on which it is possible to select sections in which the gradient is slight. A function of two variables requires a curved surface in space to represent its variations, but even here it may be possible to find restricted areas within which the variation of the function is small; but the value of cotton piece-goods is a function of a dozen or more variables and the problem of selecting classes of uniform value bears too much resemblance to an indeterminate problem in hyper-geometry to be

capable of general solution. The most that can be expected is that particular and limited solutions may be found by the method of trial and error.

Assessment-Units.

28. For the purpose of securing uniformity of incidence within a group assessment by the piece must always be less effective than assessment by weight, area or length. The classification of grey shirtings and sheetings in the Tariff of the China Maritime Customs illustrates this. The items are as follows (1924 Tariff):—

Tariff No.	Articles.	Duty per piece Tls.
1	Grey shirtings and sheetings, not over 40 ins. by 41 yards—	
	(a) Weight 7 lbs. and under	14
	(b) Weight over 7 lbs. and not over 9 lbs.	21
	(c) Weight over 9 lbs. and not over 11 lbs.	28
2	Grey shirtings and sheetings, not over 40 ins. by 41 yards, and with more than 110 threads per square inch—	
	(a) Weight over 11 lbs. and not over 12½ lbs.	32
	(b) Weight over 12½ lbs. and not over 15½ lbs.	36
	(c) Weight over 15½ lbs.	43
3	Grey shirtings and sheetings, not over 40 ins. by 41 yards, and with 110 threads or less per square inch—	
	(a) Weight over 11 lbs. and not over 15½ lbs.	25
	(b) Weight over 15½ lbs.	32

I am informed that any piece which exceeds the prescribed length or width pays duty *pro rata* on the excess, but that deficiencies in either length or width are ignored, *e.g.* a 6-lb. shirting 44 inches by 38 yards (a common size in the Indian Trade) will pay 10 per cent more than the same cloth exactly 40 inches by 41 yards, while the ordinary 36 inches by 30 yards sheeting, so popular in Bombay, would pay the same duty as one of the full dimensions. Any inequalities of incidence that may arise from the classification are bound to be exaggerated by this rough approximation to quantities. For similar reasons assessment on length can never give the same uniformity as assessment on area, since variations in width are ignored. As between area and weight the decision is not so obvious. Let us consider first a series of cloths in all of which the number of threads to the square inch is the same. The cost of weaving will increase with the count of yarn used and the value per unit weight will therefore also increase. The extra cost of weaving a given area with finer yarns is set off, however, by the smaller quantity of raw material consumed, so that there will be much less variation in the value per unit area. This is well brought out in the following table of Manchester pieces.

TABLE XLI.—*Cost of various qualities of Grey Dhutis all 44 inches by 10 yards, reed and pick 17 × 14, with ½-inch coloured borders.*

Counts of yarn	Weight.		Price.
	lbs	ozs	Pence.
32/40	1	14	33
32/50	1	8	38
38/38	1	11	42
40/40	1	9	36½
40/50	1	6	37
60/60	1	1½	32½
60/80	...	15½	31½
60/110	...	15	41½
70/110	...	13½	41½

The ratio of the highest to the lowest price per unit area is 1.33 to 1. The ratio of the highest to the lowest price per unit weight is 2.84 to 1. For this type of variation a specific duty based on area will give greater uniformity of incidence than one based on weight.

If, on the other hand, we consider a series of cloths all woven from the same count of yarn but with a varying number of threads to the inch, the cost both of unit area and of unit weight must increase with the closeness of the weave, but as the weight of a unit area is proportional to the number of threads it contains, the variation in cost per unit area must clearly be much greater than in the cost per unit weight. For example, of two well-known brands of Japanese shirtings, each of the same apparent count, one has 100 and the other 124 threads to the square inch. The value of the first is Rs. .94 per pound and Rs. .95 for five square yards. The value of the second is Rs. .96 per pound and Rs. 1.19 for five square yards. For this type of variation assessment on weight will give the greater uniformity.

The two converse propositions may be stated, namely:—

(a) For assessment on area the most suitable form of classification is one based on the number of elementary threads in unit area, *i.e.* the reed and pick.

(b) For assessment on weight the most suitable form of classification is one based on “apparent counts”, *i.e.* on the relation of the reed and pick to the weight per unit area.

The Tariff of the United States makes weight the unit of assessment, but there is a graduated scale of duties depending on the “number” of the yarn as it is termed in the American Tariff, *i.e.* on the apparent count of the cloth. The scale changes at certain points and there are, moreover, a series of *ad valorem* minima prescribed. The following is the item which relates to grey cloth:—

“*Paragraph 903.*—Cotton cloth, not bleached, printed, dyed, coloured, or woven figured, containing yarns the average number of which does not exceed number 40, forty one-hundredths of 1 cent per average number per pound; exceeding number 40,

16 cents per pound, and, in addition thereto, fifty-five one-hundredths of 1 cent per average number per pound for every number in excess of number 40: Provided, that none of the foregoing, when containing yarns the average number of which does not exceed number 80, shall pay less duty than 10 per cent *ad valorem*, and, in addition thereto, for each number, one-fourth of 1 per cent *ad valorem* nor when exceeding number 80, less than 30 per cent *ad valorem*."

The United States of America tariff is undoubtedly of a highly scientific nature. It must be based on the most careful analysis of the cost of manufacture in the States and is obviously protective in character. For every imported cloth the exact "number" of the yarn has to be ascertained so that every case will be a "border-line" case. As, moreover, the nominal and actual reed and pick of a cloth rarely agree, tests must be necessary for practically every consignment while, finally, the necessity of checking declared values is not avoided.

In the Austrian Tariff, again, classification is by counts of yarn, and duty is assessed on weight. The Japanese Tariff is an example of a two-dimensional mode of classification. There are four classes based on the weight of unit area and each is divided into five sub-classes based on the number of threads per unit area. Thus each sub-class represents a limited range of apparent counts and the unit of assessment is a unit of weight. This is the general model on which the tariffs of most European countries are based. I have been unable to find any country of importance of which the tariff imposes specific duties on a basis of area. The nearest approach is the China tariff where assessment is made on the piece and it is significant that when it was given this form the specific rates were intended to approximate in incidence to an *ad valorem* duty of only 5 per cent.

Application to Indian Trade.

29. In the Indian trade all grey goods, except a small proportion of the finer dhutis and scarves, are imported in bales whereas all white and coloured goods, except a few white and dyed shirtings, are imported in cases. It is clear from what has been said about the practical difficulty of examining goods in bales that the only convenient method of applying specific duties to grey goods would be to classify according to the reed and pick without reference to weight and to assess on the basis of area. An examination of the "Special Record" shows clearly that even if a separate class were assigned for each particular number of threads per quarter-inch square, which would mean about 30 classes, there would be very great variations of value in each class, the range from minimum to maximum value in some classes being more than 100 per cent. It may therefore be definitely concluded that the practice of baling grey goods, which the trade would be most unwilling to give up, makes any system of specific duties on grey goods less suitable for revenue purposes than the existing system.

Assessment on the basis of area would be equally unsuitable for white or coloured goods, but there are not the same practical objections to assessment on the basis of weight and classification on the basis of apparent counts. None the less, the same inequalities of incidence would arise, however the number of classes were multiplied, particularly in the case of coloured goods where the nature of the colour-process employed constitutes an additional factor of a highly variable kind. For example a system of classification such as that to be found in the Japanese Tariff would involve a variation of at least 30 per cent in the value per unit in each class of white goods, and even greater variations among coloured goods.

The conclusion is inevitable that in few branches of the piece-goods trade would the substitution of specific for *ad valorem* duties simplify procedure and that in none could it be achieved without dislocating trade, destroying the value of copyrights and trade marks and reacting adversely on the revenue.

CHAPTER VII.

The Tariff on Piece-goods: The Protective Aspect.

General.

30. In the previous chapter I have appraised the relative merits of *ad valorem* and specific duties on a strictly administrative standard with due regard to the interest of the import trade and the revenue but without special regard to the effect of the tariff on the indigenous industry. If the interests of the indigenous industry are to be considered the problem will be materially altered. It is no part of my duty to consider whether any assistance should be given to the Indian Mills but as the Bombay Millowners' Association have intimated their intention to submit to the Government of India proposals for the amendment of the tariff my survey of the problem will not be complete without a discussion of the way in which different types of tariff would react on the Indian industry. In paragraphs 24 to 26 of the previous chapter I have dealt with certain practical aspects of the assessment of cotton piece-goods and the applicability of what has been said in those paragraphs is independent of the purpose for which the tariff is to be applied. On the other hand the incidence of the duty will have to be considered, not as in paragraph 26 with reference to its effect on the import trade and the revenue, but with reference primarily to the effect on the local industry. It may even be necessary for reasons of policy to accept administrative difficulties which, with a revenue tariff, would be regarded as obstacles to be avoided. It is impossible for me to anticipate the form of the scheme which the Association will finally submit but I shall probably be on fairly safe ground if I confine my attention to the type of duty which aims at bringing the price of the imported product up to a figure which will allow a reasonable margin of profit to the local industry. I propose to refer to a rate of duty which secures this effect as an "equalisation rate". A duty which goes much beyond this point is likely to prove prohibitive and if a duty is prohibitive the method of assessment is immaterial since there will be nothing to assess.

Fluctuations and Variations.

31. It has been made clear in the preceding chapter that there is no general method of classification of piece-goods by physical attributes which will secure uniformity of price within any particular class. It has also been brought out in Chapter V that the severity of competition, measured by the extent to which imported goods can undersell local goods, increases in any particular class with the price per pound. An equalisation rate of duty must therefore allow for variations of price within the class to which it applies and it is clear that an *ad valorem* duty can always be selected which will give a closer approxi-

mation than any specific duty to an equalisation rate within the class. On the other hand, it is usual in framing schemes of discriminating protection to make reasonable allowances for fluctuations in price over a period of time. If such fluctuations cause the same rise or fall in the price per unit of both the imported and the local product a specific duty will be more suitable than an *ad valorem* duty. Fluctuations of the latter type will arise from movements in the price of raw cotton, which are generally world-wide in effect, so that if over a given period the cost of the raw cotton in a pound of Bombay cloth falls, say, by two annas, the cost of the raw cotton in a pound of Japanese cloth will fall roughly by the same amount. If, on the other hand, the effect of the fluctuations is proportional to the respective prices the *ad valorem* duty will be the more suitable. The choice therefore must depend on whether more weight is to be given, on the one hand, to variations of price within the class and to fluctuations proportional to price over a period of time or, on the other, to fluctuations over a period of time which affect both sets of products to the same extent. This can best be discussed by means of a hypothetical illustration. Let us suppose that a particular cloth includes within its range five Japanese cloths whose prices landed in Bombay (but without duty) are 16, 17, 18, 19 and 20 annas per pound respectively. Since the severity of competition will increase with the price let us assume that the prices at which similar cloth made in Bombay can secure a fair margin of profit range from 18 to 23 annas. The difference in each case will represent the equalisation rate of duty. If no allowance is made for a fall in the price of raw cotton the lowest specific rate that will secure equalisation will be 3 annas per pound and the lowest *ad valorem* rate 15 per cent. The effect will be as follows:—

Price of Japanese cloth.	Price of Bombay cloth.	Equalisation rate=difference of prices	Specific duty at 3 annas per pound.	<i>Ad valorem</i> duty at 15 per cent.
As.	As.	As.	As.	As.
16	18	2	3	2·4
17	19·25	2·25	3	2·55
18	20·5	2·5	3	2·7
19	21·75	2·75	3	2·85
20	23	3	3	3

Now let us suppose that it is decided to allow for a fall of two annas, per pound of cloth, in the price of raw cotton which will affect the Japanese and the Bombay cloth equally. The price-differences will remain unaltered, but a 15 per cent. duty will no longer cover a 3 annas difference on the most expensive cloth and a 16½ per cent. duty will be necessary for the purpose. If we compare the effect of a specific duty of 3 annas a pound and an *ad valo-*

rem duty of 16½ per cent. on these five cloths the result, at present prices, will be:—

Price of Japanese cloth.	Price of Bombay cloth.	Equalisation rate=difference of prices.	Specific duty at 3 annas per pound	Ad valorem duty at 16½ per cent
As.	As	As	As	As
16	18	2		2·67
17	19·25	2·25	3	2·83
18	20·5	2·5	3	3
19	21·75	2·75	3	3·17
20	23	3	3	3·33

or, after the price of raw cotton has fallen:—

Price of Japanese cloth.	Price of Bombay cloth	Equalisation rate=difference of prices.	Specific duty at 3 annas per pound	Ad valorem duty at 16½ per cent.
As	As	As.	As.	As.
14	16	2	3	2·33
15	17·25	2·25	3	2·5
16	18·5	2·5	3	2·67
17	19·75	2·75	3	2·83
18	21	3	3	3

It will be seen that at present prices there is nothing to choose between the two methods. Now we have allowed here for a fluctuation of 2 annas which is exactly half the total range of variation in price for the class, *i.e.* from 16 to 20 annas on the imported product. If we had allowed for a smaller fluctuation the advantage would have been with the *ad valorem* duty. If we had allowed for a larger fluctuation the advantage would have been with the specific duty. It will be found, moreover, that this result is quite independent of the particular values selected or of the assumptions made as to the rate at which the severity of competition increases. The result is entirely general in its application and may be stated in the form of the following proposition:—

If throughout the range of goods included in any particular class the severity of competition increases with the price per pound, a specific duty will be the more suitable only if the difference in price between the highest and lowest priced goods in the range is less than twice the maximum fall in prices against which it is considered expedient to provide. Otherwise an *ad valorem* duty will be more suitable.

For example, if it is considered expedient to provide against a fall in the price of raw cotton which will reduce the price of cloth by 3 annas a pound a specific duty will be the most suitable if classes can be selected within which the price varies by less than 6 annas a pound. If the range of variation is greater than this an *ad valorem* duty will be most effective.

While this proposition appears to be of general application isolated exceptions to the general rule are almost certain to arise and it may be found that in particular cloths the severity of competition for some special reason is particularly keen. If the price range for such cloths is limited, a suitable specific duty could be applied to them if they were susceptible of clear definition and if their identification did not give rise to serious administrative difficulty. It would be necessary, however, so to word the definition that there was no danger of the substitution of a very similar cloth which did not come within its scope. If such a definition could not be found a minimum specific duty alternative to the general rate might be imposed, though such a duty might prove prohibitive for the cheaper goods in the range to which was applied.

|
Definition of Class: Plain Grey Goods.

32. The practical difficulties attaching to the determination of class for grey goods have been dealt with in the previous chapter and it can be asserted at the outset that any system that involved the opening of many bales would give rise to serious administrative difficulty. This necessity could only be avoided if it were possible to fix the limits of classes in what may be described as "blank regions" in the range of goods. Unfortunately such blank regions are not numerous. Grey drills and jeans form a small group which could be defined by the nature of the weave and within this group variations of price would not be very great. The group is, however, one in which competition is not severe. So far as plain-woven unbordered goods are concerned, as one ascends the range of apparent counts the first region to be encountered in which imports are scarce is from 21s to 25s. In present conditions a dividing line fixed say at apparent counts 23s would not give rise to many borderline cases and the number of bales that would have to be opened would be much smaller than if the limit were placed say at 18s or 27s. Above 25s there are regular imports of all apparent counts up to about 60s but at about 42s imports in grey shirting lengths (ordinarily 38 to 39 yards) disappear and from this point the shorter jaconets, mulls, etc., make their appearance.

A type of definition which could be employed to prescribe classes limited by apparent counts would be on the following lines:—

"Plain unbleached cloth of which the number of elementary threads in one square inch—

- (a) exceeds x times the weight in pounds of 10 square yards,
- (b) does not exceed x times the weight in pounds of 10 square yards."

Such a definition has the effect of dividing plain grey cloth into two classes:—

- (a) cloth of apparent counts about $3/7 x$,
- (b) cloth of apparent counts not above $3/7 x$.

Thus by assigning different values to x this form of definition can be used to make dividing lines at any point in the range of apparent counts. For example, if $x=70$ the dividing line will be at 30s or if $x=98$ the dividing line will be at 42s. If it were decided to apply a special rate of duty to shirtings and to sheetings and other coarse cloths but not to the finer jaconets and mulls it might be found convenient to combine the above type of definition with a reference to the dimensions of the cloth. Actually the finest shirtings are of the same apparent counts as the coarser jaconets, the two classes overlapping in the neighbourhood of 42s. The overlap is small in extent but within its limits shirtings are considerably more numerous than jaconets. The plan which would be simplest from the administrative point of view would therefore be to include all cloth of shirting dimensions and such other cloth as was of apparent count below a certain figure, which would have to be fixed sufficiently near the upper shirting limit to avoid the cutting down of shirting cloth to obtain the benefit of a more favourable rate of duty. If 42s, for example, were selected as a suitable limit the class could be defined as follows:—

“ Plain unbleached cloth—

- (a) which is shipped in pieces not less than 30 yards in length or
- (b) of which the number of elementary threads to the square inch does not exceed 98 times the weight in pounds of 10 square yards.”

For short heavy cloths like T-cloths and Domestics no testing would be necessary since a mere glance would show that the counts were within the prescribed limits. The only tests that would be required would be for small quantities of jaconets and madapollams.

It is clear that wide classes such as those suggested here will inevitably cover cloth with a considerable range of value and in the light of what has been said in the previous paragraph, the preference must definitely be given to *ad valorem* duties.

Definitions of class: Bordered Grey Goods.

33. In the previous paragraph I have dealt with plain grey goods. The dhuti class presents difficulties all its own. It has been shown in paragraph 12 that there is very little competition in dhutis with warps 30s and below so that imported dhutis range upward from just below 30s to 100s and over, whereas grey shirtings range downward from just above 40s. Consequently the artifice suggested in the previous paragraph for the avoidance of “ border-line cases ” cannot be applied to dhutis should it be

desired to distinguish between different qualities. The whole range of dhutis is "populous" and there are no blank regions. Moreover, the difficulties of practical check will be greatly enhanced by the nature of the goods. An exact comparison of the shipment sample cannot be achieved even by the weighing of an actual specimen of the cloth without cutting a sample from the specimen in order to eliminate the effect of the border of the cloth on the weight. In fact, I have been unable to find any practical method by which it is possible without undue inconvenience to discriminate between the coarser and the finer varieties of dhuti. In these circumstances it is necessary to formulate a definition which would exclude dhutis from the class-discrimination proposed for plain grey goods. I suggest the following heading:—

"Bordered grey cloth, that is to say, grey cloth having borders not less than one-eighth of an inch in width and headings at the extremities and, in addition, if the cloth is more than 6 yards in length, headings at intervals of not more than 6 yards indicating where the cloth is to be cut".

Definitions of class: White Goods.

34. The output of white goods in India is very small and no very definite information is available as to the classes of white goods produced. Should it be considered necessary to discriminate in the tariff between coarse and fine goods, definitions of the type discussed in the previous paragraph could be framed and, since white goods are rarely baled, they could be applied with less inconvenience to white than to grey goods. Very little white cloth is imported with an apparent count below 30s but if a dividing line were fixed at 40s there would be a large number of borderline cases and if any discrimination is to be made it would be preferable to adopt the rough system of discrimination by value which will be discussed in the next paragraph.

Definitions of class: Coloured Goods.

35. In the earlier chapters of this report the extreme difficulty of making a detailed comparison between Indian and imported coloured cloth has been emphasised. The position is further complicated by the fact that although no colour-printing is done in conjunction with the Indian mills certain imported printed goods compete with colour-woven Indian products. Further, discrimination by apparent counts is appropriate to grey or white goods because, in so far as the method makes no allowance for sizing, it serves to bring together the heavily-sized cloth and the more lightly-sized cloth with which it competes. Where, however, the difference between actual and apparent counts is due to the weight, not of sizing but of dyeing material, the position is very different. The cost per pound of dye instead of being, like the cost of sizing, small compared with the cost of raw cotton, is always much greater. Consequently a pound of heavily dyed fine cloth and of

lightly dyed coarse cloth will differ very greatly in price and they will not be in competition even though they may have the same apparent count. Some other method of discrimination must therefore be sought.

Reasons have already been given for believing that the severity of competition increases with the price per pound in any particular class of goods. This suggests that the price itself might be used as a basis of classification. Coloured goods are ordinarily sold by the piece and not on weight so that an exact check on the weight of each piece would be necessary for all goods near the limit of a class. It is possible, however, to minimise disputes and the amount of check necessary by employing a specific duty to bridge the gap between two *ad valorem* rates. Thus suppose, for the sake of illustration, it were decided to impose a duty of 15 per cent on goods whose real value did not exceed 22 annas per pound and the existing revenue duty on fine goods. The tariff might then run as follows:—

Coloured goods—

- | | |
|--|-------------------------------------|
| (a) The real value of which does not exceed 22 annas per pound. | 15 per cent.
<i>ad valorem</i> |
| (b) The real value of which exceeds 22 annas but does not exceed 30 annas per pound. | 3·3 annas
per pound |
| (c) The real value of which exceeds 30 annas per pound. | 11 per cent.
<i>ad valorem</i> . |

The administrative advantages of a system of this kind are clear. There is no sudden change anywhere in the incidence of the duty; "border-line cases" cease to be of exceptional importance since the stake involved in a dispute as to value is no greater at the limit of a class than at any other point in its range and, further, there is no tendency to split the trade into discrete groups and thereby to depreciate the value of trade-marks and designs. Finally the system provides against the danger, which is inherent in a protective duty applied to a limited class, that indirect competition from goods differing only slightly from the protected class may take the place of the original direct competition.

Tariffs of other countries.

36. In the face of the foregoing conclusions it is only pertinent to enquire why, if an *ad valorem* duty is administratively so much more convenient, most other countries have not seen fit to adopt that method of assessment and I feel that my analysis of the position will not be complete without some attempt to reply to this question. The answer is to be found in certain characteristics which are peculiar to the Indian trade. The primary basis for the assessment of *ad valorem* duties in most countries is the domestic value in the country of origin and it is not generally realised that this is a matter of necessity rather than choice. The ultimate proof of value must always rest on evidence of sales and only if imported goods change hands at the port of arrival is it

possible to scrutinise evidence of value at the place where the evidence arises. There are some classes of imported goods for which the only sales that can be adduced in evidence are sales by the manufacturer in the country of origin and the Indian law provides for assessment on such evidence, only if local evidence is not available, but there are also large classes of staple products for which local evidence is available in the Indian ports. It is in this respect that the Customs authorities are so much better placed in India than in most other countries and the Indian law takes full advantage of the opportunity thus afforded. The features which differentiate India from other countries in this respect are not far to seek. Her foreign import trade is concentrated almost entirely in the five great ports in each of which are regular markets for staple goods. Such goods almost invariably are resold at the port before passing on to the consumer or to the retail dealer so that for a very substantial portion of the trade evidence of value is available at the place of entry. The concentration of trade in a small number of large ports has the further great advantage that the necessary strength of the expert assessing staff is reduced to a minimum, thus effecting economy in cost of collection, simplicity of control and that publicity of transaction which is so valuable a guard against fraud. In continental European countries these very great advantages exist, if at all, to a very small degree. A large proportion of their foreign trade is rail-borne, in most of them the places of entry for foreign goods are numerous and staple goods do not as a rule change hands immediately on entry. A very much larger proportion of the trade is done by direct dealing between the consumer or the retail dealer and the foreign manufacturer or else by shipment to the manufacturer's own representatives. Assessment on local wholesale market value has its disadvantages but it has undoubted advantages and the ability to use these to strengthen its system of *ad valorem* assessment gives to the Indian Customs administration a strength which is almost unique.

The other great British Dominions, Canada, South Africa, Australia and New Zealand all apply *ad valorem* duties to cotton piece-goods. On the continent of Europe specific duties are the rule. They are almost all framed on the same model and provide only the roughest approximation to equality of incidence. Even among countries which protect their own textile industry by high duties the only attempt at a scientific tariff is to be found in the United States of America. The only country in which conditions can be compared with those in India is China where, it is true, specific duties are in force. The reasons for this are no doubt linguistic, for the tariff in China is administered by an international body dealing with local merchants whose language must prove a formidable obstacle to the investigation of local evidence. In fine, I do not think it is possible to name any country, in which cotton piece-goods are assessed on a specific basis, where conditions do not differ in many important respects from conditions in India.

CHAPTER VIII.

Summary of Conclusions.

37. The following is a brief summary of the conclusions at which I have arrived:—

(1) A revision of the statistical classifications of piece-goods is very urgently required. So long as they remain in their present form it will be very difficult to gauge the progress of competition. (Paragraph 6.)

(2) The first aim of the revision should be the removal of ambiguities from the headings. This can only be achieved by the issue of clear instructions as to the scope of each heading. (Paragraph 6.)

(3) The second aim of the revision should be the unification of the systems of classification adopted in the various returns. At present there are at least five different systems in force. (Paragraph 7.)

(4) The year 1927-28 typifies the normal relations which may be expected between Bombay Island and other Indian centres of production when full working in Bombay is resumed. (Paragraph 8.)

(5) In 1927-28 Indian production was shared as follows:—

	Per cent.
Bombay Island	49
Ahmedabad	22
Other mills in the Bombay Presidency and adjoining areas	21
Elsewhere	8
	<hr/>
	100
	<hr/>

(Paragraph 8.)

(6) Ahmedabad is the principal centre for the production of dhutis but the production in Bombay Island has increased since the Tariff Board reported. Their shares of the dhuti output in 1927-28 were 38 and 27 per cent respectively. (Paragraph 8.)

(7) Bombay Island produced 61 per cent of the grey shirtings in 1927-28 and Ahmedabad 18 per cent. The Ahmedabad share in the following year was 32 per cent. (Paragraph 8.)

(8) Only about one per cent of the cloth returned as "Grey or bleached" by the Indian mills is bleached. The Tariff Board were correct in estimating that the total quantity of bleached goods was considerable but they were misled into supposing that it was plain white cloth. In actual fact about ninety per cent of it is cloth with a coloured stripe or check, classified either as "Coloured striped saris and susis" or as "coloured drills and jeans".

Bombay Island and Ahmedabad each produce about 100 milyards of such cloth. (Paragraph 8.)

(9) Ahmedabad in 1927-28 produced about 40 per cent of the total output of saris and susis but very little else in the way of coloured cloth. Bombay Island also produced 40 per cent of the saris and susis and about 80 per cent of the output of other coloured cloth. (Paragraph 8.)

(10) Calcutta is the principal market for grey cloth of Indian production, and 90 per cent of the dhutis and 65 per cent of other grey goods are sold either on the Calcutta market or in the area served in respect of imports by Calcutta. (Paragraph 9.)

(11) Less than 30 per cent of the coloured goods produced in the Indian mills are sold in the Calcutta area. (Paragraph 9.)

(12) Hand-loom production supplies a bigger proportion of the total demand for cloth in the Madras Presidency than elsewhere. (Paragraph 9.)

(13) Roughly 80 per cent of the total output of piece-goods in the Indian mills and 75 per cent of the output of dhutis and shirtings are woven from counts below 25s. About 13 per cent of the dhutis and shirtings are woven from yarns 26s to 30s, 9 per cent from 31s to 40s and 3 per cent from 41s and over. (Paragraph 10.)

(14) Some progress has been made in the weaving of finer counts since the Tariff Board reported but the results are not very striking. (Paragraph 10.)

(15) The steady rise in imports from Japan in the last 8 years is the most prominent feature of the import trade. Japan's progress since the Tariff Board reported has been rapid and uninterrupted. (Paragraph 11.)

(16) Imports of dhutis from the United Kingdom have remained steady while the Indian mill production has increased. The two trades overlap only to a small extent in the region of medium counts and Ahmedabad is certainly not suffering from external competition in this trade. Bombay on the other hand competes with difficulty against Ahmedabad. (Paragraph 12.)

(17) Japan entered the dhuti trade seriously in 1925-26. She now provides about 10 per cent of the imports but these consist almost entirely of dhutis woven from yarns above 30s. (Paragraph 12.)

(18) Japan's most striking advance has been in shirtings. Her progress at first was at the expense of Lancashire and imports from the United Kingdom have fallen to quite a small figure. In the last three years she has progressed at the expense of the Indian mills and the figures for the first half of the current year 1928-29 indicate very serious competition. (Paragraph 13.)

(19) The Bombay production of sheetings has fallen away owing to the loss of overseas markets to which Japan has now established direct sailings. Production of sheetings elsewhere in India

has not been greatly affected, but competition in heavy shirtings from Japan has reacted unfavourably on sales of Indian sheetings. (Paragraph 14.)

(20) The Indian mills hold their own in the production of grey drills and jeans in which the demand is almost entirely for a heavy class of goods. (Paragraph 15.)

(21) There is little, if any, production of the finer classes of grey goods in India. Imports which come almost entirely from the United Kingdom have fallen off since the war. (Paragraph 15.)

(22) Japan has not seriously invaded the import trade in white goods, most of which remains in the hands of Lancashire. It consists largely of goods whose fineness is above the limit at which production from Indian cotton is possible. (Paragraph 16.)

(23) There has been a considerable increase in imports of printed goods in the past three years, notably in drills and jeans from Japan, fancy "prints and chintz" from the United Kingdom and shirtings from Japan and Italy. These printed drills and jeans are of fine quality and with the printed shirtings compete with Indian woven striped shirtings. Fancy "prints and chintz" do not compete with any Indian product. (Paragraph 17.)

(24) Imports of dyed goods increased considerably in 1926-27 but have remained at the same level since. (Paragraph 17.)

(25) Imports of colour-woven goods increased up to 1926-27 but have since fallen off to a small extent. The principal competition is from Japanese striped shirtings, twills and coarse drills. (Paragraph 17.)

(26) Only the roughest comparison between Indian and imported coloured cloth is possible owing to the extreme diversity of the trade and the ambiguity of the statistical headings. (Paragraph 17.)

(27) The maintenance of the export trade in Indian coloured cloth suggests that competition is not as severely felt as in the grey goods trade. (Paragraph 17.)

(28) There is very little direct competition in coloured goods between the United Kingdom and the Indian mills. The only serious external competitor is Japan, though there is evidence that Italy may become a formidable rival in the near future. (Paragraph 17.)

(29) If allowance be made for fluctuations in the price of raw cotton there has been no general reduction in the price of Japanese cloth since the Tariff Board reported. (Paragraph 19.)

(30) Owing to the declining raw cotton rates the prices of both imported and local cloth have fallen appreciably during the past four months (August—November 1929). (Paragraph 19.)

(31) Over a range of cloth in which the cost of raw cotton per pound of cloth does not vary appreciably the severity of competition increases with the price. (Paragraph 20.)

(32) The coarser imported grey cloths constitute such a range and in consequence there is a limiting price below which imported cloth is apparently unable to compete. Thus the lowest market prices of imported grey cloth in August 1929 were about 14 annas in Bombay and about $13\frac{1}{2}$ annas at other ports. (Paragraph 20.)

(33) The limiting prices for coloured cloths are higher than for grey goods indicating that, in general, competition in coloured goods is less severe than in greys. (Paragraph 21.)

(34) The fact that, area for area, fine cloth is often cheaper than coarse cloth causes indirect competition between imported fine cloths and locally made coarse cloths. (Paragraph 22.)

(35) A general movement of prices in any particular range of cloth is apt to react on the price of other cloths of an entirely different nature. (Paragraph 22.)

(36) Artificial silk yarn is being used to an increasing extent in the weaving of striped cotton goods and the borders of dhutis. To this extent artificial silk is an ally rather than a competitor of cotton. (Paragraph 22.)

(37) The imports of artificial silk cloth and of mixed cotton and artificial silk fabrics are in competition with real silk goods rather than with cotton goods. (Paragraph 22.)

(38) Specific duties are not necessarily simpler to administer than *ad valorem* duties. (Paragraph 23.)

(39) A check on value is often the most effective check on quantity available to the Customs officer. (Paragraph 25.)

(40) The determination of nett weights is not administratively practicable for goods packed in bales. (Paragraph 25.)

(41) The determination of nett weights for goods packed in cases is practicable but would probably necessitate the acceptance of nominal rather than actual weights and the prescription of scales of allowances. (Paragraph 25.)

(42) The determination of the gross weights of baled goods would be practicable. (Paragraph 26.)

(43) The determination of area would necessitate much the same physical checks as are now imposed but it would still be necessary to check the landed cost. (Paragraph 25.)

(44) The determination of class would be feasible, if the class depended on the number of threads in unit area, whether the goods were packed in cases or bales. (Paragraph 26.)

(45) The determination of class, if the class depended on the weight of unit area, would be feasible for goods packed in cases but not for goods packed in bales. (Paragraph 26.)

(46) A classification depending on the actual counts of yarn from which a cloth has been woven is not practicable. (Paragraph 26.)

(47) A system of specific duties, if it is to approximate in incidence to the existing *ad valorem* duty, must involve the imposi-

tion of a series of different rates on different classes of goods. (Paragraph 27.)

(48) Without allowing for the effect of sizing it is impossible, even by the indefinite multiplication of classes, to avoid fairly wide variations of value in each. (Paragraph 27.)

(49) The less the number of classes the more inequitable the incidence of the duty will be. (Paragraph 27.)

(50) The greater the number of classes the greater the number of disputed "border line cases" which will arise. (Paragraph 27.)

(51) One effect of the division into classes will be the creation of a number of ranges of goods which cannot be profitably imported in competition with others more favourably treated by the new duties. The value of the trade-marks applied to goods in these ranges will be greatly depreciated. (Paragraph 27.)

(52) If a unit of area is taken as the unit of assessment the greatest uniformity of incidence will be achieved by a classification dependent on the number of threads in unit area. (Paragraph 28.)

(53) If a unit of weight is taken as the unit of assessment the greatest uniformity of incidence will be achieved by a classification dependent on the apparent count. (Paragraph 28.)

(54) On administrative grounds a change from the existing *ad valorem* method of assessing duty is undesirable. (Paragraph 29.)

(55) If a protective duty is intended to be prohibitive the method of assessment is immaterial. It is merely necessary to fix the rates sufficiently high. (Paragraph 30.)

(56) The only other form of protective duty to be considered is one that aims at equalisation of prices. (Paragraph 30.)

(57) In deciding what form of duty is most suitable for such a purpose it is necessary to take into account variations in price over the range of articles to be subjected to the duty as well as fluctuations in price over a period of time. (Paragraph 31.)

(58) To allow for fluctuations which affect imported and local products alike a specific duty is the more effective. (Paragraph 31.)

(59) To allow for other fluctuations or for variations among different qualities of goods an *ad valorem* duty is the more effective. (Paragraph 31.)

(60) The decision must therefore be in favour of *ad valorem* duties unless it is feasible to select classes in which the range of prices is small. Such a selection will not be feasible except among certain very limited types of piece-goods. (Paragraph 31.)

(61) The fact that very little grey cloth woven from yarns finer than 42s is shipped in lengths of more than 24 yards could be used to simplify the classification of grey cloth for protective purposes. (Paragraph 32.)

(62) The factors contributing to variation in the price of dhutis are much more diverse than with plain grey cloth and this, coupled with the fact that they are almost invariably packed in bales, leads to the conclusion that it is not feasible to apply differential rates to dhutis. (Paragraph 33.)

(63) If it is desired to discriminate between coarse and fine coloured goods an approximate division based on the price per pound will be the most convenient method. (Paragraph 35.)

(64) If a protective *ad valorem* duty were imposed on the cheaper type of goods and the present revenue duty were retained on more expensive goods it would be both desirable and feasible to bridge the gap by a specific duty based on weight. (Paragraph 35.)

(65) All the principal countries which have revenue tariffs have adopted *ad valorem* duties. (Paragraph 36.)

(66) The concentration of India's foreign trade into the five great ports, which are also the principal markets for a large hinterland, makes *ad valorem* duties and, in particular, assessment on local market value workable whereas in countries with a large number of small ports the market value system would be unworkable. (Paragraph 36.)

(67) There is very little trade in baled goods into the countries which have protective specific duties. (Paragraph 36.)

Acknowledgments.

38. I desire to place on record my appreciation of the willing assistance and advice given to me by many who are interested in the Indian industry and in the import trade. In particular I wish to acknowledge the helpful co-operation of Sir Manmohandas Ramji and Mr. S. D. Saklatvala of the Bombay Millowners' Association, and the courtesy shown to my technical assistant Mr. H. Mukherji, A.M.C.T., by millowners in Bombay, Ahmedabad and elsewhere. Mr. Mukherji's technical advice has throughout proved invaluable and I owe him a particular debt of gratitude. Finally I wish to acknowledge the ready assistance rendered by the Director-General of Commercial Intelligence and the Collectors of Customs and their staffs.

G. S. HARDY.

The 25th November 1929.