

THE PROBLEM OF THE COTTON SUPPLY.

By ERNEST H. TAYLOR (Manchester).

FOR more than a century the cotton industry of Lancashire has held a position that has practically been unassailable by its foreign competitors. By slow and tedious methods improvement after improvement and invention after invention have so developed the various processes of manufacture that now the organisation of the whole industry is in a highly perfected state.

Not only have the manufacturing processes received the careful attention of the cleverest and highest skilled workers, but the question of the distribution of the finished article has also received the consideration to which its importance entitles it. The network of organisation radiating from Lancashire penetrates to every part of the globe. There is no country nor island, however remote, that is not in constant communication with the shipping houses by whom the distribution of cotton goods is effected. Vast amounts of capital and great concentration of energy have been required to build up the system of providing and retaining the markets upon which Lancashire is so largely dependent.

It seems strange, therefore, when one considers the extent of this vast industry, the enormous amount of capital sunk in its various branches and in those subsidiary industries connected with and dependent upon the cotton trade, to find that the bulk of the sources from which the raw material is obtained are in the hands of foreigners.

One would have thought that Lancashire, at all costs, would have retained control of the bases of supply, and thus provided herself with means of feeding the great industry she has built up at such expense and trouble.

Instead of this, however, it would appear that the energy and forethought of our great commercial men of the last fifty years have been concentrated more upon perfecting the means of manufacture and distribution than upon making rational provision for a full and uninterrupted supply of raw material. Consequently when speculators whose aim is to create fictitious values and sudden advances and depressions in the prices of commodities turned their attentions to the raw cotton supply they found Lancashire an easy prey to their manipulations.

These influences began to be seriously felt about ten years ago, and Lancashire received a rude shock. Every public man of importance connected with the cotton trade issued warning of the serious consequences to the British cotton industry unless energetic measures were taken to free ourselves from the incubus of the American speculators.

Of late years, owing partly to the improvements that have taken place in the various processes of manufacture, our chief rivals on

the Continent and in the United States of America have made great strides in the production of cotton fabrics. The advantage which Lancashire formerly enjoyed by reason of the humidity of its climate for the spinning of fine yarns is gradually, through the application of scientific methods, being undermined, and it is only a question of time before means will be found for obtaining the necessary humidity in any spinning mill in any part of the world.

The following striking figures will prove of interest to those connected with the trade:—

AVERAGE ANNUAL CONSUMPTION IN BALES OF AMERICAN COTTON.

	1880/85	1895/1900	1905/10
England	2,627,000 ...	2,878,000 ...	3,196,000
America	2,029,000 ...	3,277,000 ...	4,870,000
Continent	1,541,000 ...	3,425,000 ...	4,379,000

From the above table it will be seen that foreign competition has now seriously to be reckoned with. The purchases of American cotton by this country no longer regulate the price to the same extent as formerly. It is probable that in a few years' time both the States and the Continent will each require a supply of five million bales. Then will come the speculator's opportunity. With insufficient raw material to keep all the spindles of the world running full time, it becomes a survival of the fittest, and must mean loss even to the survivors.

The effect of this ruinous competition for the insufficient raw supply is evidenced by the great increase in prices of Middling American cotton in Liverpool during recent years.

AVERAGE PRICE OF MIDDLING AMERICAN COTTON IN LIVERPOOL.

1890/1894	4.70 per lb.
1895/1899	3.81 " "
1900/1904	5.78 " "
1905/1909	6.70 " "
1910	7.80 " "
1911	7.84 " "

Thus the improvements effected during the last twenty-five years in machinery, in processes of finishing and in distribution, have all been annulled by the machinations of a clique of speculators, aided in their operations by the inconceivable lethargy and apathy of the individuals principally concerned. The loss to the community can not only be expressed by the increase in the finished article. The amount of loss entailed both by masters and operatives during the period under review by working short time is enormous.

From the most exact calculations that I have been able to obtain it is estimated that the losses in wages of the operatives alone can be estimated in millions.

At the very lowest figures the total loss of wages due to short time since 1900 may be computed at from 8 to 10 millions of pounds sterling. This loss falls upon a large portion of the community,

as it is one of the axioms of economics that bad trade affecting any great industry is bound to reflect upon the prosperity of other industries.

No doubt part of the depression that has existed in the English cotton trade of late years has resulted from the great increase of spindles. During the "boom" year of 1907 many more new mills were erected than the requirements for the time being called for. However, it would be making a very serious statement to contend that Lancashire has reached the zenith of her powers, and that no further development is possible or desirable.

The fact is that cotton, like wheat, is one of the commodities the world cannot have too much of. At reasonable prices, the uses to which the article can be put are capable of great extension. On the other hand, high-priced cotton can only result in a restricted demand. The poorer peoples of India and China, who have only a few rupees per individual to expend on cotton goods, must necessarily curtail the quantity of cotton goods purchased when high prices prevail.

Therefore it is of absolute necessity that Lancashire should look ahead with the fixed determination of providing for its future requirements.

The crop of American cotton this year has been exceptionally large. Even with the greater area under cultivation, no one would a year ago have predicted such a large supply. For the last eleven years the average crop per acre has been 0.379 of a bale. On this basis last year's planting would have produced about 14,200,000 bales.

The vital point is, however, that we cannot guarantee a continuance of the exceptional climatic conditions that prevailed during last year, and which contributed in a large degree to the results attained. But even if a succession of similar large crops were to be relied upon, it would only take a few years before the increasing needs of the world would again cause a shortage of raw material. According to the estimates made some years ago by Mr. J. A. Hutton, the needs of the world are increasing at the rate of 400,000 bales per annum. In five years' time, therefore, it is conceivable that another two million bales per annum will be required to keep the world's spindles going. From the most accurate statistics obtainable, I calculate that the numbers of spindles in operation has increased from 93,500,000 in 1895 to 140,500,000 in 1911.

This means a total increase of 50 per cent in 16 years. On an average the number of additional spindles put into operation during this period has been more than $2\frac{1}{2}$ millions yearly.

It will, of course, be contended that this rate of increase of spindles cannot be maintained. It certainly cannot be maintained unless sufficient cotton is obtainable at a reasonable price.

My contention is that with an abundant supply of moderate priced cotton there is a sufficient world demand to keep not only the present mills running full time, but to provide work for even more mills.

In an interesting report on the cotton question recently compiled by the German Imperial Colonial Office, the following passage occurs:—

“If China were to clothe herself as does America she would require all the cotton the United States now produces; to clothe all the peoples of the earth would take 42 millions of bales.”

All over the world civilising agencies are at work, and the more civilised a country becomes the more cotton goods it requires.

Do the machinists consider that we have reached the high-water mark, and that their efforts in future are to be principally concerned with the renovation of obsolete machinery and repairs to existing plant? If so, it is not a very satisfactory outlook for them, and I would point out particularly that it is not only spinners and manufacturers who are directly concerned with the question of the raw cotton supply.

It is of vital importance also to those subsidiary industries of bleaching, dyeing, and finishing which provide employment to thousands of operatives and in which vast sums of capital are invested, and it is hardly of lesser importance to the great commercial interests such as banking, insurance, transport, and the like.

Should the weather conditions in America next season be unfavourable we shall again be face to face with a shortage and its concomitant evils, namely, disastrous fluctuations in prices, losses to spinners and manufacturers, and perhaps the worst feature of all, intermittent employment of the operatives.

The question before the meeting to-day, however, is the consideration of the best means of remedying the present state of affairs. It will be readily granted that a larger supply of cotton is necessary if Lancashire is to retain its pre-eminence in the manufacture of cotton goods.

The following points will have to be considered:—

What is being done at present to increase the area under cotton cultivation? Can any reasonable alternative schemes be brought forward to accelerate the provision of very much larger quantities of raw cotton?

In 1902 a body of men who fully realised the dangerous position met together, and the result was the formation of the “British Cotton Growing Association.”

This association was officially recognised by the British Government and incorporated by Royal Charter in the year 1905.

The objects of the association were, briefly, to encourage by all means in its power the extension of cotton growing within the Empire, and to assist with expert information and advice those planters who were endeavouring to establish the cultivation of cotton upon their estates. It was never the intention of the association to actively undertake the growing of cotton, but rather to act as an advisory board, and by experimenting in various parts of the Empire to be able to state what particular varieties of cotton seed are most suitable for different localities. The energies of the

association have also been directed to the problems of labour supply and transit, and through their exertions much valuable information has been accumulated.

As it will be necessary to discuss the results obtained by the association, I should like to make it clear that my criticisms are not made in an unfriendly spirit. I have been treated with the greatest courtesy by the officials regarding any information for which I have asked them.

The difficulties with which the association have had to contend have been enormous. The apathy and indifference shown by Lancashire to a question affecting its very existence has been appalling, and consequently a great deal of the energy of the association has been directed towards the collection of the small sum under its control, which energy might have been put to better uses.

The Cotton Growing Association has now been working for nine years, and in 1910 the quantity of cotton grown, directly and indirectly under its auspices, was approximately 30,000 bales. Last year the quantity of cotton handled by the association was about 55,000 bales. The official figures are not yet issued, but Mr. Himbury, the manager, very kindly supplied me with an advance report. Next year it is probable that the quantity obtained will be from 70,000 to 80,000 bales. But even then the rate of progress is totally inadequate. The few bales per annum produced up to now have not had the slightest effect upon the price of the American crop. It has been stated that as it took America 35 years to produce the first crop of one million bales, the rate of progress achieved by the association up to the present has been satisfactory. I do not hold that view. America first produced a million bales about the year 1840, when it took from six to eight weeks to cross the Atlantic, and before a single railway had been built in America. Surely it is not very enterprising to be content with an even slower rate of progress than obtained in those days.

The association is in no wise to blame for this state of affairs. Up to last year it has had less than a quarter of a million pounds to work with, and even if it makes up its capital to £500,000, which it shortly will do, after deducting the amount of money already sunk in pioneering work it will only have about £300,000 of capital to continue its great work. When one considers that the value of the American cotton crop during the last few years has averaged roughly £150,000,000 per annum, one can see the difficulties ahead of the association.

The fact is, that the reason, and the sole reason, why the British Cotton Growing Association has not made more progress is that the funds at its disposal have been quite inadequate for the great work it has undertaken. It is absolutely impossible to obtain important results with the small capital at its command.

It is, moreover, an open question whether by working upon its present lines the association is ever likely to achieve its objects. A much larger capital is necessary to bring about any serious

increase in the world's crop, and as for some years it will be a very difficult task to make the enterprise self-supporting, it is also necessary that the capital be raised under the most advantageous financial conditions. This is tantamount to saying that it is only by means of a Governmental guarantee that the money could be raised. A capital of five millions would enable important work to be done. It is not suggested that such a large sum should be immediately raised. It could be raised gradually as required and as opportunity presented itself to wisely employ the money. The British Cotton Growing Association, with the accumulated knowledge of nine years' investigation and research behind it, would probably be in a position to immediately acquire possession of certain desirable lands where cotton is most likely to be successfully grown, and to commence forthwith the planting and development of those estates.

To raise the necessary capital, bonds of the association could be issued from time to time bearing a Government guarantee of $3\frac{1}{2}$ per cent interest, the arrangement being that at no time has the Government liability to exceed £150,000 per annum.

As undoubtedly in course of time the undertaking would become remunerative, arrangements could be made to eventually pay back to the National Exchequer the sums advanced by it.

It is improbable that if such a scheme could be evolved the amount for which the Government would incur liability would ever amount to so large a sum as £150,000 yearly, because certain undertakings would forthwith commence to pay their way. As a national investment it would be one of the finest schemes ever undertaken by the Government. The money provided by the Government, however, should be used solely as interest, and in no case whatever be regarded as provision of capital.

If the Cotton Growing Association were not disposed to actively undertake these operations it would no doubt readily place its information at the disposal of any national undertaking formed for that purpose.

From many points of view it would be greatly desirable for the association to itself undertake the active management of such a concern, should one be formed. Its charter contains powers of the widest financial character, and, amongst other things, provision is made for the inclusion upon its board of members directly nominated by the Government.

Let us take a suppositious view of what might happen under certain circumstances. Suppose in the first instance that the active Council of the Cotton Growing Association were to be augmented by a Government official directly representing the Treasury. Also by other officials representing the Governments of various Colonies or Crown Possessions where operations were likely successfully to be carried on.

From these and the present Council of the Association smaller working committees could be selected whose representatives would be remunerated for their services and who would publish periodical accounts of the operations undertaken.

The question of the localities to be first developed would form the subject of an enquiry. For some time consultations have been taking place periodically between the Colonial Office and the Cotton Growing Association. The results of their deliberations would no doubt be available. I might point out that it is a matter for regret that the British Cotton Growing Association publishes to the world at large so few of the results of its investigations.

One would have thought that a monthly publication on the lines of that published by the Chamber of Commerce would prove both interesting and useful, and might easily be made self-supporting. Thousands of people in Lancashire would welcome the opportunity of subscribing to such a journal, and of keeping in closer touch with the operations that are taking place.

From the published reports it appears likely that the most important and immediate results are to be obtained from the following countries: India, North and South Nigeria, the Soudan, British East Africa.

Many authorities consider that India will prove the most profitable ground for investment, and the deputation from the Federation of Master Spinners that waited upon the India Office in August, 1910, strongly advocated more energetic measures for the encouragement of cotton growing in that country.

In Nigeria the Government has spent more than £2,000,000 in building a railway which, I believe, has now extended as far as Kano, a total length of 450 miles. From people who have lived out in this country, however, I gather that the labour difficulty is fairly acute, but many people seem to think that cotton plantations would prove very successful provided that other crops, such as ground nuts, were also raised upon the same estates. It would also appear that the labour question could only be solved by co-operation with the native chiefs.

In Egypt and the Soudan great attention is being paid to the subject, and Lord Kitchener is actively interesting himself in it. Whilst nothing but the greatest good can result from this enterprise on the part of the Egyptian authorities, one must keep in mind that what Lancashire mostly needs is a steady and abundant supply of cheaper cotton. The greatest scarcity hitherto has been in the medium grades of American cotton, the "inch and one-eighth" staple, and this scarcity cannot be remedied by the provision of higher grades similar in quality to the Egyptian varieties. There are about three times as many spindles in this country engaged on American cotton as there are spinning Egyptian yarns, and six times the quantity of raw American cotton is employed.

India, therefore, seems to hold out more promise of rapid extension of the cotton crop than any of the other countries in which experiments have been conducted, and it is thought possible by judicious planting and irrigation a better quality of cotton might be obtained than that previously produced in that country.

Much of the cotton produced in Africa up to the present has

been of too good a grade to help us out of our difficulties. One reads in some of the reports that "such and such quantities of excellent cotton were obtained that realised 9d. or 10d. per pound." This is good in its way, but it is not what we want most. We want a steady and abundant supply of good cotton at about 5d. per pound.

Now the reproach against Indian cotton hitherto has never been that its quality has been too good. One is reminded of the Lancashire weaver, who in the time of the American famine offered up prayers for more cotton, "but not Surat."

One reason why I think that the longer stapled varieties of raw cotton will never—or, at any rate, not for many years—be produced at a low or medium cost, is that nature seems to arrange that the finer the quality the smaller the quantity. The best blooms are generally obtained from trees producing the smallest number of flowers. A friend once told me that in Aberdeen he could grow the finest strawberries, "but the quantity is small; they ripen so slowly." Now in Kent one can grow much larger quantities of smaller but still useful fruit. It is the same with cotton. The most prolific varieties are the medium qualities, and it is quantity that is most urgently required.

All users of the cheaper qualities of cotton goods would prefer to see a little more cotton and a little less filling in the goods they buy. The arts of finishing cotton goods are being every day perfected, until it is astounding what excellent results are obtained, but most merchants are still old-fashioned enough to prefer an article that will wear to one that merely looks well.

But to return to the question of a Government grant. Any Government that was approached by an influential body of Lancashire men with a request for an annual grant of £150,000 would naturally ask some pertinent questions.

One of these would be: Why should the cotton trade be placed upon a privileged basis and favoured above all other trades?

The reply to this would be that there is not a household in the kingdom that is not directly interested in the price of raw cotton.

There are over 3,000,000 bales used every year in the mills in this country. If the price of raw cotton advances one penny per lb., it means an additional cost to the country of £6,000,000 a year. Supposing, however, that two-thirds of the cotton goods are exported, the country is still paying two million pounds a year extra for the goods consumed in its own territory.

For five years (1895-1899) the price of raw cotton averaged under 4d. per pound. For the last five years it has averaged over 7d. This means that the country paid last year £6,000,000 more for its cotton goods than it would have done had it been able to purchase raw cotton upon the basis of price which ruled during the years 1895-1899.

Now, I put it to you, would not the country rather pay a comparatively small amount like the sum asked for than pay millions per annum more for its cotton goods?

This is not a question of party politics. The question is this: The greatest industry in the country is imperilled, and its future rendered precarious by the shortage of raw material required by that industry. Although the crop this year is a large one, there is no certainty that a continuance of large crops in America will be obtained. On the other hand, a failure of the American crop through bad weather or other adverse conditions will at once paralyse the cotton industry.

The effects of these shortages are now causing the country a needless expenditure of millions of pounds annually.

Is it abnormal or unreasonable to expect the Government to grant a moderate sum of money in order to increase very largely the area under cotton cultivation?

Remember that the hardships resulting from a failure or partial failure of the cotton crop press much more hardly upon the poorer members of the community than upon the wealthy. The operatives are the ones who suffer most by short time, and it is estimated that between 8 and 10 millions of people are directly and indirectly concerned in the cotton trade.

Again, the poorer part of the populace are proportionately the largest users of cotton goods. They feel the rise in price the most. A great amount of the social unrest in this and other countries is due to the increase in the cost of living which has taken place during the last ten or fifteen years, and surely it is the duty of every Government, whatever its political convictions, to as far as possible increase the fruits of the earth and extend the supply of raw materials.

There are over 50 members of Parliament now representing constituencies whose chief industries are dependent upon the raw cotton supply. Their united voices in the House of Commons would carry great weight.

Provided Lancashire tackles this problem with energy and determination, there is no reason why in a few years' time we should not free ourselves from the incubus of the American speculator and work out our own salvation by the provision of a sufficient supply of Empire grown cotton.

The machinery is already there. The British Cotton Growing Association, fully equipped with knowledge and experience, is waiting for the requisite capital to be provided.

It will take many years to establish the plantations. Why wait until more difficulties overtake us before seriously attempting the solution of the problem?

DISCUSSION.

MR. FLETCHER (Hyde) expressed his agreement with the remarks of Mr. Taylor. The question of our cotton supply was of vital importance to the Lancashire trade, and if the Institute could formulate some scheme to bring before any Government which happened to be in power—a scheme somewhat on the lines

suggested in the paper—it would earn the gratitude of the cotton trade and the public generally who were dependent upon that trade.

MR. GREENWOOD (Oldham) said he did not agree with Mr. Taylor on some points. Mr. Taylor had laid stress upon the point that the high prices were often due to the operations of speculators. Personally, he did not agree. Wherever there was a speculative "bull" there was, in his opinion, a speculative "bear." The question of supply depended almost entirely upon the demand. At the time when the discussion was taking place upon how to increase the supply of American cotton, he ventured to say that they would not get any substantial aid in that direction, but where they would have to look for a great increase in supply to meet their requirements would be to the places from which the supply was now being obtained. We had now a crop facing us of nearly 16 million bales. If they went thoroughly into the matter, and, as Mr. Taylor had pointed out, tried to control, besides the distribution of the yarn and cloth, the cotton producing it would be a great thing for them. The British Cotton Growing Association was on the wrong lines in the sense that they had appealed to a great extent to sentiment. In Lancashire they must appeal to business and finance. If a great corporation on the limited liability system could be effected it would be better than asking for guarantees from a Government. Lancashire traders had managed to run their businesses in the past, and he thought they could continue to do so. They would get the most relief from the areas of America, India, and Egypt, but they should press forward in the matter of British cotton growing.

MR. WM. BLEAKLEY (Manchester) said they had been allowing Lancashire to "mind its own business," as Mr. Greenwood suggested, and the consequence was that for the last four years there had been a terrible depression in the Lancashire trade. He ventured to suggest that the arguments adduced by Mr. Taylor would outweigh those of Mr. Greenwood, and that the suggestion to approach the Government was an excellent one. It was not in any sense begging from the Government. To ask the Government to guarantee interest on bonds that were issued and money that was privately subscribed was not nearly so humiliating as going round to impoverished operatives, who were only working four days a week, and asking for threepence a week. The British Cotton Growing Association were concentrating on India. There was a good deal of poverty and unrest in India, and if they could enrich India they would not only do good there, but, if a good cotton was got in return, they would be benefiting their own district as well. He thought there was a great need for a man in India who would revive the agriculture bureaux. From conversations with gentlemen who had travelled in India he gathered that the establishment of banks where the Indian cotton farmer could obtain advances at a reasonable rate of interest on the cotton that he grew would be a great boon, and surely that was within the region of possibility. He

was heartily glad to have had the opportunity of hearing the paper and Mr. Fletcher's words of approval, and he hoped the Textile Institute would be able to do something in regard to the matter. It might be advisable to have the co-operation of the cotton workers, and there should be in every mill and factory in cotton-using districts a sort of voluntary league to assist in furthering any movement to secure more cotton.

Mr. J. McCONNEL (Manchester) mentioned that the British Cotton Growing Association had done as much as they could to interest the working classes of Lancashire in the matter which was of such vital importance to them. In regard to the paper, he proceeded, he was inclined to think that the author made a mistake to lead them to expect that anything they could do in Lancashire or elsewhere would ever ensure a regular supply of cheap cotton in the sense Mr. Taylor had referred to—say 4d. for ordinary American cotton. He did not believe that an enormous crop could be grown in the United States if the planters were only assured of a price of 5d. per pound in Lancashire. From his reading of the proceedings of the British Cotton Growing Association, also, he gathered that the great difficulty they met with almost everywhere was that when the cost of growing and the cost of carriage were taken together it was exceedingly difficult for them to pay a remunerative price to the native so as to encourage a large development of cotton growing. They could grow cotton as an experiment, but, broadly speaking, their experience seemed to teach them at present that cotton in Africa could only be produced and brought to Lancashire at a comparatively high price. He did not think that the fact that the price of cotton might not be low again for a long time to come need discourage them, because he did not believe that the consumption of cotton at 6d. per pound would be considerably less than it would be at 4d. per pound, taking the supply all over. Some interesting figures were published a short time ago by Mr. Theodore Price, who pointed out that in the final cost of the cotton-made article to the wearer the price of cotton, within reasonable limits, was almost negligible. Another aspect of the question which had been mentioned was that of the world's consumption showing, according to estimates a few years ago by Mr. J. A. Hutton, that the needs of the world were increasing at the rate of 400,000 bales per annum. That statement might be true at the time it was made, but the increases were progressive. He had no doubt that the reason for the high price of cotton during the last two years was that the world's supply of cotton and cotton goods was less than what the world's requirements were. He had no great fear that another 16 million bales of cotton would lead them back to anything like the price of 4d. per pound. When the first 13 million bale crop was grown there was a large surplus in the supply, and they might have said, "We are certain to have lower prices," and yet if they had looked at the figures as they followed, instead of having lower prices the prices were continually going higher. He did not, of course, mean to suggest that the prices

now would go higher than the 7d. or 8d. of last year. The question of increasing the supply was of vital importance to the world, and the question was as to who was to be responsible for securing the increase. He entirely differed from Mr. Taylor in thinking that there would be anything gained by endeavouring to get the increase by means of a large organisation dealing with millions sterling and having a guarantee from the Government. He thought the Government would never be persuaded to give a guarantee which would mean that they would take all the risks and the shareholders would get the profits if it was successful. Moreover, he differed also with the suggestion of another speaker that a large undertaking should be formed to grow cotton for a profit for private investors. He was almost certain that anything of that kind would fail. The growing of cotton had to be controlled on the spot, and he would look with very great fear upon any movement to form a company with, say, a million sterling to grow cotton in different parts of Africa or India, believing that such an undertaking would in all probability lead to great disaster and loss, and might give them a set-back. "To my mind," proceeded Mr. McConnel, "The thing that is wanted is coming about at the present time. The great improvement in the prospects of the British Cotton Growing Association at the present time is due to the fact that the different Colonial Governments are each in their own Colonies taking an interest in the question of cotton growing, not for the benefit of Lancashire, but for the benefit of the Colony which they represent. The Cotton Growing Association may be open to a good deal of criticism, but it has worried through the lean and difficult years, and has now brought about the position that the Colonial Governments are in favour of cotton growing where it is possible, not from a philanthropic purpose, but because they think it will benefit the Colonies in which they have administration. I think that is where the great help of the future will come from, and it is to stimulate something of that kind that we ought to give our attention." He was inclined to think that something in the nature of a Grand Committee was desirable. Good work was being done by the British Cotton Growing Association and the Master Cotton Spinners—particularly in the form of the International Federation—and the Colonial Governments and the Indian Government were taking a greater interest in the subject than they had done. What was now wanted was a Grand Committee that would bring all these different bodies together for unity of action. There seemed to him to be wanted as the work of such a committee: First, continuing statistical inquiry, so that they might know what they did not know now—how much it was reasonable to expect the crops of the world to be increased, how much the crops were, how much was being done in different places, and so on. They also wanted very badly something in the British Empire to correspond with the Agricultural Bureau or the Board of Agriculture in America, which studied the whole question of the science and economics

of cotton growing. The third thing that such a Grand Committee could do would be to study from time to time the commercial aspects of the case—how the cotton was to be handled, how far it was possible to do anything while retaining the advantages of a "Future" market to prevent undue use of it by speculators, etc. How the Grand Committee should be constituted was a more difficult question, but it should represent the Colonial Office, the Indian Office, the British Cotton Growing Association, the Masters' Federation, and strong representation of the merchanting class—say the Liverpool Cotton Association and the Master Cotton Association. That, roughly, seemed to him to be the line upon which something might be done upon the question of increasing the supply of cotton, which he believed to be the most important question before Lancashire and the world at the present moment.

MR. HEYLIN (Manchester) said that Mr. Taylor, in his paper, gave expression to his belief that lower prices brought greater trade. From investigations which he himself had made over a period of years he found that that was not so. Mr. Taylor had mentioned the period of 1890 to 1899, when cotton was under 4d. per pound. His own average for the period 1894 to 1899 was 3·79d. for American cotton, and the index number at current prices based on 1896 values, he gave as 98·72. The average increase of trade from 1894 to 1899 over the trade of the period 1886 to 1893 was 5·6 per cent. The average price of cotton for the period 1886 to 1893 was 5·2d., and the average increase of trade over the period 1880 to 1885 was 7·5 per cent. The average price of cotton for the period 1880 to 1885 was 6·12d., and the average increase of trade was 19·8 per cent. In the period 1900 to 1907 the average price of cotton was 5·58d., the increased average trade was 4·3 per cent. Taking the last four years, 1908 to 1911, the average price was 6·85d., the increased average trade was 5·3 per cent.

MR. TAYLOR: I suppose you take the yardage.

MR. HEYLIN: I have taken everything.

MR. TAYLOR: I don't understand what you mean by an advance in trade of 4·3.

MR. HEYLIN pointed out that he was indicating that the value of the trade when prices were 5d. to 6d. or higher was more than when lower prices for cotton obtained. The figures he was giving were based on constant prices and quantity. Those figures showed that low-priced cotton did not necessarily mean an increased demand for cotton goods.

MR. J. PERCIVAL, who was invited to speak by Lord Rotherham, said it was a great pleasure to him to hear the paper and to be present amongst gentlemen engaged in the textile industries, because during the past eight years he had been engaged with the British Cotton Growing Association in trying to get a supply of cotton in Northern and Southern Nigeria, North-Eastern

Rhodesia, and Nyassaland. The more one travelled in Africa the more one realised the great scope there was for operations to supply Lancashire with cotton. Regarding the allusions to the price of cotton, the experience of the British Cotton Growing Association in Africa was that a low-priced cotton at present was not a profitable cotton upon which to develop a native industry. The development of the British Cotton Growing Association in Africa was based solely on cotton growing as a native industry. In Rhodesia and Nyassaland cotton growing could be worked on a larger scale as a European industry, but before the success of the industry could be certain they must have many improvements in the shape of mechanical tillage, mechanical traction, and other aids to cheapness of cultivation of the land. In Nyassaland and Northern Rhodesia, where he had had some experience, there seemed to be a sort of warfare between getting labour for mining and agriculture. The problem yet to be solved was whether it was more profitable to use the native for agricultural work or better to work in the mines down in the Transvaal. The natives were often persuaded to work in the mines, and upon their return after a few months to their native villages they found that the growing of cotton did not pay them as well. In Nyassaland they had a Governor who had put his foot down on the recruiting of labour out of Nyassaland. He said that if labour was required in the Rand it must come from other Colonies, or other parts of Africa than Nyassaland, so that now in Nyassaland they were keeping the population in the villages. The native was being taught to grow cotton and cultivate his own land and bring his cotton to the Association. Cotton growing as a European industry in Nyassaland was in its infancy. Many estates had been run at a profit there, and he was firmly convinced that before long cotton growing would be classed as a proper paying industry in North-Eastern Rhodesia and Nyassaland, especially if improvements in mechanical ploughing could be effected. What was wanted was to reduce the cost of carriage, and also to increase the yield per acre to the point that meant good profits.

MR. OSCAR S. HALL (Bury) said he thought the suggestion by Mr. McConnel in regard to a Grand Committee might bear good fruit. He did not, however, agree with Mr. McConnel entirely in pushing aside the question of Government support. He thought there was no doubt that something should be done. There was one grave danger which he did not think had been touched upon yet—possibly the gravest danger which threatened the cotton industry of this country. When he was in Russia eighteen months ago he made some inquiries from prominent manufacturers who told him that they were getting at least 60 per cent of their supplies from cotton grown in the Russian Empire. One could see what that would ultimately mean unless this country got some other source of supply. It might mean that when the Americans absorbed the greater quantity of their own cotton Russia

would work down into our markets in Persia, and he was told that even now the Russians took their goods over the frontier without paying any duties, and into China. That would show the need for something to be done. The Russians were hoping to be absolutely independent of American cotton within a short period. He thought it would pay the Government if they found not £150,000, but £500,000, even if they did not get it back. He believed the possibility was that they would get the whole of the money returned in due course, and with interest. Commercial men approached a thing like this with suspicion, and they in Lancashire did not like to call for Government aid until they had exhausted every other means. He thought they could reasonably say to-day that Lancashire had not been able to rise to the occasion. If the Corporation of Manchester could go to the aid of the Manchester Ship Canal, then Government could aid the growing of cotton, which was vital to Lancashire and to the whole country. Perhaps too much was being made of lowness of price, but the main thing was to see that the present price at all events did not increase, and the only way to do that was to get supplies from fresh sources.

MR. F. R. McCONNEL (Manchester) said he thought it was one of the most important things that Lancashire could do to keep pace with the latest machinery. Unless they put up new mills equipped with the latest machinery they could not cope with the increase of trade in other districts, and with the running up of new mills, automatic machinery, and so on, the grade of cotton which they required in this country was advancing. With automatic looms, for instance, it was a distinct advantage and economy to use better classes of cotton. Therefore they must not entirely concentrate their ideas upon large bulks of lower cotton, but endeavour to raise the quality of cotton and provide machinery such as would economically employ that cotton. Then there would be less waste, less labour, and a better chance of England holding its own in the markets of the world.

MR. W. H. HIMBURY, F.R.G.S. (Manchester), observed that he did not think anyone realised the great difficulties and troubles the Cotton Growing Association had had to contend with. After referring to the great difficulty in regard to means of transport, Mr. Himbury said the Association had been hampered in the past by want of money. Their capital of half a million sterling was not at their disposal, and, having had small capital to go upon, they had to "cut their cloth" accordingly. Many districts which they might have entered in the early days had to be left over. It was necessary to prove where cotton would grow and where cotton would not grow; they had made mistakes, and naturally had to pay for their experience, but that experience was to-day very valuable. He had travelled in West and Central Africa perhaps more than any other white man living, and he was most optimistic as regarded the future growth of cotton

there. He was certain that the foundation had been laid for a large supply of British-grown cotton. The question, however, was not only the production of cotton within the Empire, but the finding of new markets within the Empire. The money spent in Nigeria in British cotton would come into Lancashire for textiles. In Uganda, where seven years ago there was not a bale, he expected to buy 32,000 bales this year, 50,000 next year, and 100,000 in the following year. As to the Soudan, their chairman, Mr. Hutton, had just returned from that land, and was deeply impressed with its possibilities for growing American and Egyptian cotton. In regard to India, when they tackled the Indian Government they were up against a big elephant; he was certain the Indian Government intended to do something, but their movement was very slow.

MR. E. H. TAYLOR, in reply, said: My thanks are due for the kind consideration with which my paper has been received. I should like to refer to one or two points raised during the discussion. Mr. J. McConnel stated "he was opposed to the formation of a company either with or without a Government guarantee of a capital of, say, one million sterling, to grow cotton in Africa or India, believing that such an undertaking would in all probability lead to disaster and loss, and might give them a set-back." I venture to give the opinion that Mr. McConnel entirely ignores the fact that the conditions that have prevailed of late years have entailed upon the community very much more serious losses than would be caused even if the undertaking were for a time a failure. I must emphasise the point that each additional increase of one penny per pound in the price of raw cotton costs this country two millions per annum more for the cotton actually consumed within the British Isles, and I can see no other way of preventing these losses than by extending the cultivation of cotton. To do this money will have to be spent, and spent freely. The Cotton Growing Association has never had sufficient capital to work upon a large enough scale. If one reads its reports since its inception one finds that the want of capital has restricted its operations at every turn. With regard to Mr. McConnel's suggestion that a Grand Committee be formed, I would state that the British Cotton Growing Association is already constituted for the purposes which Mr. McConnel suggests should occupy the attention of the proposed Grand Committee. Statistical enquiries relating to raw cotton, the commercial handling of the cotton, and the conferences with the Colonial Offices are necessarily subjects which the Cotton Growing Association is expected to study. Of what use, then, would it be to multiply such bodies? If the Cotton Growing Association were strengthened by direct Government representation and tackled the question upon an adequate scale, which it has never done or been able to do, up to the present, there would be no need for the formation of any Grand Committee.

Statistical knowledge will not help to any great extent. We know already that an additional annual crop of one million bales

grown in British territory and earmarked for Lancashire would mean a great asset for this country. At the same time it would benefit the Colonies and Dependencies in which it would be grown. It is not a question of the Government taking all the risks and the shareholders taking all the profits. Governments are popularly supposed to exist to promote the interests of the country at large. Employers, by means of restricted output through organised short time, are often able to protect their own interests, and the burden falls upon the operatives, who receive four days' pay instead of six, and upon the consumers of the finished article. Moreover, interest at the rate of $3\frac{1}{2}$ per cent would be no great profit for the shareholders. Any extra profit could be made into a reserve fund until a sufficient amount is laid by to relieve the Government of further liability. Personally I do not think this problem can be solved without Government assistance. As Mr. Fletcher stated, it is one of the most important questions before Lancashire, and the world, at the present time. Before casting aside the proposal of Government aid I ask you to very carefully consider whether it is in the best interests of this country to continue in the half-hearted policy that at present prevails.