The Alleged Decline of the British Cotton Industry.

I.

In the July number of *Blackwood's Magazine*, prominence is given to an article upon 'The Prospective Decline of Lancashire.' The writer affirms that evidence, not merely of arrested growth, but of actual going back is already visible, and that this is not a sign of temporary depression of the British cotton industry. It is the first stage of permanent declension. The question thus raised is so important, whether it be viewed from a local or from a national standpoint, as to call for careful investigation.

What are the facts upon which this truly alarming forecast is founded? It is stated, in the first place—with truth—that, in North Lancashire, the spinning branch of the industry has, for years past, been steadily decaying. The number of spindles in that part of the country has greatly diminished. Many old mills, destroyed by fire, have not been rebuilt, whilst others have been denuded of their machinery, and converted to other uses. Reference is made to the contemporaneous growth of spinning in South Lancashire, but there is no attempt, statistical or other, to determine whether or not these changes are, as is commonly believed, a simple transference of productive activity from one district to another. Indeed, statistics are very sparingly used throughout the article, and the writer does not show that either the number of spindles or the production of yarn in the British cotton industry has fallen off. It is affirmed, however, that 'the spinning trade, in the bulk, stands worse than it did ten years ago.' But it is rather to the 'dishearteningly unsatisfactory condition of the weaving branch of the Lancashire cotton trade' that the writer points as a portent of the downward tendency of the whole industry. In the towns of Blackburn and Preston, and the districts around them, either the number of looms has diminished or the weaving mills have, to a large extent, been transferred to new occupants, by the failure, or retirement from business, of those who formerly worked them. It is admitted that eastward, in the Burnley and Nelson districts, there has been an extension of cotton manufacturing (as distinct from spinning) and the main cause of this growth in one section of the country, at the expense of decline, or arrested progress, in another, is correctly stated. It is due chiefly to an unfortunate difference in the wages lists, which has made it possible to produce important descriptions of goods more economically in the favoured districts than in others. But here, again, no figures are presented to prove that the increase there, does not exceed the supposed decline elsewhere.

In a summary statement, the general conditions surrounding the British cotton industry are reviewed. These are :—that the aggregate consumption of cotton goods in the world has not diminished, but has been steadily increasing; that prices of these goods are lower than they ever were; that the quality of British cotton manufactures has not become worse; that the total supply in the great markets, especially in that of India, has recently, at times, if not continuously, exceeded the wants of consumers, that, in foreign markets, English manufacturers have not been able to hold their ground against competition abroad, and, finally, that some outlets have been largely closed against them. The conclusion then is, that the chief cause of the 'decline of Lancashire' is the growing competition of the cotton industry in other countries, partly because this has been artificially favoured by protective customs tariffs, and partly because it has become more efficient than it used to be. The rapid expansion of spinning and weaving by machinery in India is dwelt upon at considerable length, and to it is attributed—more than to any other circumstance—the assumed decline of the industry at home. The *Blackwood* article is evidently written with much knowledge of the history and the present surroundings of the British cotton industry; but I think it is possible that a wider and more searching inquiry may lead to results very different from those at which Mr. Abram has arrived.

The statistics of cotton spinning machinery in the United Kingdom collected by the Factory Inspectors have hitherto been taken irregularly, at wide intervals, and upon different methods. It is therefore exceedingly difficult to draw from them quite satisfactory conclusions as to the expansion or contraction of the industry. With other aid, however, it is possible to arrive at figures which may be regarded as substantially accurate. According to the official returns, there were, in 1874, 37,515,772 'spinning' spindles in this country. The number of 'doubling' spindles is not relevant to the present inquiry, because these are employed in a subsidiary process and their introduction would obscure rather than throw light upon it. The returns for 1878 gave the number of spinning spindles as, 39,527,920, and those of 1885 as 40,120,451. The latter were, at the time of their issue, as were also those of 1890, generally regarded as defective, and may, perhaps with advantage, be neglected. Accepting, however, the figures for 1874 and 1878, I add to them, in the following table, the carefully prepared estimates for subsequent years of Mr. Thomas Ellison of Liverpool, the most trusted statistical authority in the cotton trade:—

Number of Cotton Spinning Spindles in the United Kingdom, and the average Consumption of Cotton in lb. per Spindle.

	Spindles.	Consumption per spindle.
1874	37,515,772	33·7
1878	39,527,920	30·0
1883	42,000,000	35·0
1884	43,000,000	34·0
1885	43,000,000	32·0
1886	42,700,000	34·0
1887	42,740,000	34·0
1888	43,000,000	35·0
1889	43,500,000	34·0
1890	43,750,000	37·0
1891	44,750,000	38·0
1892	45,350,000	35·0

These figures indicate that there was an increase, between 1874 and 1892, in the number of spindles, of 7,834,225, or at the rate of 20·8 per cent. The greater part of it occurred between 1874 and 1884. Afterwards there was a slight diminution, but in 1889 the enlargement began again, and has continued to the present time. A comparison of the figures for 1883 and 1892 brings out the fact that within the last nine years an augmentation of the number of spindles has occurred of 3,350,000 or at the rate of nearly eight per cent. There can be no doubt that in the Northern half of Lancashire, and also in Scotland, the quantity of spinning machinery has, especially since 1878, been diminishing, but in South Lancashire it has increased prodigiously. For some years this growth was all but confined to Oldham for the spinning of medium 'counts' of yarn, and to Bolton for that of the finer counts. But lately it has extended to Rochdale, Heywood, Stockport, and other South Lancashire towns, which have become formidable rivals to Oldham.

Among the chief reasons for this transference of cotton spinning from North to South Lancashire are (1) the fact that, in the latter, the system of building gigantic mills, worked—because of their magnitude and their structural improvements—at greatly reduced cost, was first established; (2) that this movement was encouraged by the close proximity of the foremost spinning machine-making works in the world, by the concurrent growth in and around Oldham of a superior class of spinning work-people, and by the founding of a local share market, and of a body of men who found profitable employment in the formation of new spinning companies. Perhaps also, the comparative nearness of Oldham to Liverpool, the great cotton depôt, and to Manchester, the great yarn market, may be named as an auxiliary cause. Meanwhile, it was not only the absence of these circumstances in the Northern half of the county, which brought about the decay of spinning there. The older mills, once prosperous, were either too small, or were constructed upon abandoned plans, ill-adapted, or incapable of adaptation, to modern methods. Moreover, the competition of the newer mills of the South was slowly developed, especially at first, and its ultimate triumph was for some time uncertain, until it was proved that joint stock companies, with abundant loan capital, and possessing great establishments, worked economically because they were great, could be successfully managed, and could produce yarn at a reduced cost. Finally, however, the race was ended, and the South won.

But the important consideration, so far as my immediate purpose is concerned, is that the concentration of the spinning industry in South Lancashire has resulted in a substantial increase of spindles on the whole, in spite of the disappearance of mills elsewhere, the extent of which is shown in the figures already quoted.

Let us now compare with the statistics of machinery those of the consumption of cotton. It will be convenient for this purpose to take the figures of each cotton season, viz., from September 1st to August 31st. These are given in bales of the average weight of 400lb. each in order to ensure accurate comparison :—

Consumption of Cotton in the United Kingdom

	Bales (of 400 lb. each).		Bales (of 400 lb. each).
1873—74......	3,165,320	1886—87......	3,694,000
1877—78......	2,941,120	1887—88......	3,841,000
1882—83......	3,744,000	1888—89......	3,770,000
1883—84......	3,666,000	1889—90......	4,034,000
1884—85......	3,433,000	1890—91......	4,230,000
1885—86......	3,628,000	1891—92......	3,977,000

The consumption in 1873-74 was very large, and yet, if it be compared with that of 1891-92, it will be seen that the latter exceeds it by 761,680 bales, or at the rate of 24 per cent. This proportion is somewhat greater than that of the increase of machinery, but it substantially confirms the accuracy of Mr. Ellison's estimate of the number of spindles existing now. The evidently more rapid growth of the weight of cotton consumed may appear, at first sight, somewhat surprising, in view of the reduction of the hours of labour since 1874, and of the undoubted fact that the average counts of yarn spun in English mills has become finer. To set against these tendencies towards a diminished consumption of cotton per spindle, there are, however, changes which have outweighed them. Improvements and enlargements in machines, and better methods of manipulating the staple, have made it possible to increase the speed of the spindle, without adding to the labour of the workpeople, and the consequence has been, not only reduced cost of production, but also increased out-turn and consequently increased consumption of cotton per spindle.

A further step in the investigation may now be taken. What changes have taken place in the course of the last eighteen years in

Exports of Cotton Yarns and Piece Goods.

	Yarns.	Value per lb.	Piece goods.	Plain Cloths. Value per yard.
	lb.	*d.*	Yards.	*d.*
1874	220,682,919	15·79	3,606,639,044	3·22
1878	250,631,800	12·47	3,618,655,300	2·76
1883	264,772,000	12·25	4,538,888,500	2·61
1884	270,904,600	12·24	4,417,280,000	2·47
1885	245,809,900	11·58	4,374,516,500	2·33
1886	254,331,100	10·84	4,850,210,500	2·21
1887	251,026,000	10·88	4,904,012,000	2·27
1888	255,846,100	10·94	5,038,307,700	2·27
1889	252,435,800	11·13	5,001,239,100	2·24
1890	258,290,800	11·47	5,124,966,000	2·30
1891	245,258,700	10·94	4,912,475,700	2·31
1892 (to end of October)	195,048,700	—	4,031,271,000	—

the quantities of cotton, yarns, and goods exported? This question is the more important because it is upon the supposed loss of foreign demand that the alleged decline o fLancashire rests. It is answered in the last table on the preceding page.

Here again, comparing the figures for 1874 with those for 1891, a marked expansion is shown. It is true that, of yarns, the exports increased, within the seventeen years, only to the extent of 24,575,781 lbs, or 11·1 per cent., but those of piece goods were enlarged by 1,305,836,756 yards, or 36·2 per cent. Exact comparison of the quantities exported in any one year with those in another is probably impossible, because of the variation in the counts of yarns sent abroad, and in the width and texture of the piece goods. Nor is it possible to obtain more precise results by taking the aggregate values or the prices per lb. or per yard as the groundwork of the comparison. It is, however, a prevailing opinion, that the average counts of the yarns sent to foreign markets have been growing finer for several years past. This view is almost certainly correct and it serves to explain, in part, the comparatively small increase in the weight of the exports since 1874. But undoubtedly, the main cause for the small rate of expansion of this department of the foreign trade is the growing competition of the spinning industry abroad, particularly in India. It will be noticed, too, that, since 1874, there has been a remarkable falling off in the weight of yarn exported. Again, probably some diminution of the average width of the piece goods shipped to foreign markets has occurred since 1874, but this is not likely to be considerable, and if any alteration has taken place in the average texture and weight per yard of piece goods, it is much more likely to have been in the direction of fineness than of coarseness. Whatever allowance may be thought necessary, however, on the score of width and texture, it must be insufficient to lessen appreciably the weight of the evidence, afforded by the preceding figures, of a large expansion in the quantity of piece goods exported since 1874. But it is the statistics for the period since 1883 that have to be dealt with, in considering the main question at issue—that of the movement of the last few years. It must, obviously, be conceded that the foreign demand for yarns has decreased, and it may be fairly described as stationary, since 1884. On the other hand, that for piece goods has increased since 1883 to the extent of 373,587,200 yards, or 8·2 per cent. Since, however, the total weight of cotton in the piece goods is about $5\frac{1}{2}$ times that in the yarns exported, it is obvious that the quantity of both descriptions sent abroad has been substantially, though perhaps not greatly, enlarged. The nearest approach to an exact statement of the quantity of cotton contained in the yarns and goods exported is that presented by the estimates of Mr. Ellison, which, after careful examination, I accept as substantially accurate. The next table gives the results of his investigations for each year since 1882:—

Weight of Cotton in Yarns and Goods exported and retained for Home Consumption.

	Yarn produced.	Exported in goods and yarns.	Remaining for home consumption and stocks.
	lb.	lb.	lb.
1883	1,420,000,000	1,176,000,000	244,000,000
1884	1,387,200,000	1,163,000,000	224,200,000
1885	1,272,800,000	1,115,600,000	157,200,000
1886	1,410,183,000	1,178,900,000	231,283,000
1887	1,419,947,000	1,186,100,000	233,847,000
1888	1,452,330,000	1,206,100,000	246,230,000
1889	1,449,344,000	1,196,000,000	253,344,000
1890	1,558,332,000	1,273,900,000	284,432,000
1891	1,542,937,000	1,226,000,000	316,937,000

The quantity of yarn produced in each of these successive years does not, it must be admitted, exhibit either a steadily progressive growth, or a very important one, from first to last. A glance at the second and third columns reveals also the fact that the greater part of the increase is due to an enlargement of home consumption and of stocks. The latter, however,—that is to say, an increase of stocks—was not perceptible until the end of 1891, when the accumulations were in a few departments somewhat considerable. The experience of the wholesale houses engaged in the home trade is confirmatory of the statistics just referred to, showing as it does a marked improvement during the last four or five years in the distribution of cotton goods in the home market. Still, even those referring to exports afford no warrant for the theory that the foreign demand for British cotton productions has fallen off since 1882.

The returns of the factory inspectors of the number of looms in the cotton industry of the United Kingdom I have so far neglected, in order not to interrupt the course of the inquiry as to the consumption of cotton and its distribution in the spun and manufactured forms. But these may now be advantageously referred to. The official statistics of looms are, probably, more accurate than those of spindles which have appeared since 1878. They are shown in the following table :—

Number of Cotton Looms in the United Kingdom.

	Number.
1874	463,118
1878	514,911
1885	560,955
1890	615,714

Worrall's Directory of the cotton trade gives the number of looms, obtained by independent methods, in Lancashire, Cheshire, and Derbyshire alone in 1892 as 615,719, and those in other parts of the country, Scotland included, may be put down at about 30,000. Assuming, however, that the entire number thoughout the kingdom is not more than 630,000, a comparison of the figures for various periods yields the following results. Between 1874 and 1878 there was an increase of 51,793 looms or 11·1 per cent; between 1878 and 1885 of 46,044 or 8·9 per cent.; between 1885 and 1890 of 54,759 or 9·7 per cent. and between 1890 and 1892 of 14,286 or 2·3 per cent. It is, no doubt, quite true that during the last four or five years an appreciable proportion of weaving machinery has, from time to time, been stopped or working short time in one district or another, and it is possible that both the Factory returns and Worrall's Directory may include a certain number of looms not working when the statistics were collected. But the figures showing the quantity of cotton used in the manufacture of goods for home consumption, and those giving the amount in the cloth and yarns exported are good evidence of an enlarged employment of weaving machinery within the last eight years. No reliance need therefore be necessarily placed upon the statistics of looms. They are interesting, but they are not of essential importance in the present inquiry.

What is the proper inference to be drawn from the series of co-ordinate statistics which I have been studying? Not certainly that the British industry has gone backward since 1874, nor even since 1882. On the contrary, there is clear evidence of progress, slow undoubtedly, and at a diminished rate in recent years; but, still *progress*, and not retrogression, even in the foreign branch of the trade. How, then, are the complaints, which have been very prevalent for a long time past of diminished and precarious margins, of reduced profits and of actual losses, to be accounted for? So far as the causes lie at home, they are mainly attributable to the keen competition of the large new mills, mostly—so far as the spinning department is concerned—worked by joint-stock companies, first with the older establishments and then with each other. Severe, and not always undeserved, criticism is frequently heard of the methods by which these companies are founded, and their factories built. The promoters, it is said, have often other ends in view than that of making money by spinning cotton. One wants to sell a piece of land, another to secure a good order for machinery, a third to add to the number of his clients for whom he buys cotton, or sells yarn, and so forth. How much truth there may be in these statements is not a question of present interest. It is certain, however, that a newly-equipped cotton mill of adequate size can make a profit upon a 'margin' between the prices of cotton and yarn which affords none to others not many years older, and which entails absolute, if not ruinous, loss upon really 'old' establishments. Shares in new companies are consequently, in ordinary times, readily saleable, and often command a premium. The original subscribers can therefore easily reduce or get rid of their holdings, and give their attention to fresh enterprises of the same kind. But all new things become old gradually; and, in course of time, the shares, once at a premium, fall to a discount. At the present moment nearly all the quotations of cotton mill shares are in this position, and a few of these are just now worth very little. It is understood that a considerable proportion of the shares is held outside the cotton districts, and, although they are largely—and perhaps for the most part—in the hands of local people, the 'bad trade' to which these attribute the low prices of shares is not ruinous to them. They have generally some other occupation or investment by means of which they can live, and are rarely quite dependent upon their "divis" (the quarterly dividends from the spinning companies). At the present moment the business of promoting new spinning companies is not active. The share-lists have an uninviting appearance, and the demand for investment is slack.

In the weaving branch of the industry the joint-stock method, as it is practised in South Lancashire, has never succeeded. The conversion of cotton yarns into piece goods has, for many years, been increasingly an operation demanding greater skill, and, if not closer attention, more inventiveness and abundance of resource on the part of the manager than that required by the controller of a spinning mill. The latter, when once his organisation has been well established, needs little more than constant attention, and faithful adherence to recognised rules. The former must be always on the alert, either to prevent mistakes, or to vary his production according to the needs of the market. An energetic expert is required, who must occupy his mind, either in devising changes, or in carrying out changes suggested by others. Hence the weaving branch of the industry has tended to fall, more and more, into the hands of laborious, strong, and inventive men who, springing often from the ranks, have been enabled by a system which is as new as that of the joint-stock method in spinning, to take important places in the ranks of 'manufacturers,' that is to say, master weavers. These do not possess spinning mills, and consider themselves fortunately unencumbered, because at any moment they can go into the market and buy any 'count' or quality of yarn which they may want. This new system is that of erecting great weaving 'sheds'—that is to say, long and broad buildings of one storey in height, so designed as to receive their light from the top, and, as far as possible, from the north, in order to exclude the direct rays of the sun which are always troublesome to weavers, who have to keep watch and guard over a multitude of minute threads or 'ends' in their warps. These new structures are economical because they can be supplied with motive power from large engines. They are not always occupied by one tenant, but often by several, each of whom has his own portion distinctly marked off. These have, of course, to pay a rent, and this is sufficient to afford a handsome profit to the proprietor. It is, however, not yet a finally determined question whether or not a beginner, or at all events one who is a little advanced in the cotton manufacture, would do better by renting a portion of a 'shed' or by building or renting a small and self-enclosed manufactory. Enough has been said, however, to show that in the weaving as well as in the spinning branch of the cotton industry, fresh competitive forces have constantly been arising, all of them tending to increase production and to lessen profits. In the weaving industry also, new machinery has always an advantage. It can be driven more rapidly than old, and can produce better work.

A general observation may here be made applying equally to spinning and weaving mills. The downward tendency of prices in this country, as well as the operation of stimulated invention, has for some years past been lessening the cost of building and plant. Instances have been known of new mills being built or equipped for no other reason than that they could be 'put down' at so much less per spindle or per loom than surrounding mills. A like reason has often been the motive for extension of old establishments as a method of reducing the general cost of manufacture. Thus the cause of bad trade—falling prices—has, according to a now acknowledged rule, tended to increase the means of production, and to diminish profits, as well as to hasten the destruction of many old mills and much old machinery.

So far the investigation has shown that, in spite of great changes, which have brought about important local and individual suffering, the cotton industry of this country has not ceased to grow. The adverse conditions which have undoubtedly attended its course during the past ten or fifteen years, and the reasons for anticipating its permanence, and its future progress, will be set forth in the second portion of this article.

ELIJAH HELM

THE VILLA AND THE MANOR.[1]

I WAS moved by Professor Ashley's essay on 'The English Manor' to say to him that, as I believe, the word *villa* has survived in this island from Roman times, and that it is obscurely imbedded in some of our place-names. He desired me to give some evidence of this—and hence the present note.

That the word *villa* is latent in some of our names was long ago suggested by Mr. Coote in his book, *The Romans of Britain*, p. 40 note. The observation arrested my attention and I have more or less kept it in view as a matter to observe upon, and I can only say that the probability of Coote's observation has seemed to grow on me. But when I seek to produce proof that may convince others, I find it not easy, in consequence of the assimilation of the word to the form of *well*, a fountain or stream of running water.

In my *Land Charters*, p. 130, I have taken *Wilburgewella* (Cod. Dip. 282) to signify Wilburh's villa, although 'wella' is one of the

[1] The origin of the Manor forms a question of such vital interest in economic history, that even a philological argument bearing on this subject does not seem out of place in the *Economic Journal*.—EDITOR.