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# FACTORY ACT LEGISLATION

Its Industrial and Commercial Effects,  
Actual and Prospective

BEING

THE COBDEN PRIZE ESSAY FOR 1891

BY  
VICTORINE JEANS

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*"Spero Meliora"*

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THE GREAT  
AMERICAN



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## COBDEN PRIZE.

### VICTORIA UNIVERSITY.

A prize of the value of £60, to be awarded once in three years, was offered to the University by the Committee of the Cobden Club, and was accepted by resolution of the University Council on the 13th December, 1880.

The following are the conditions:—

1. The prize shall be awarded for an Essay on some subject connected with Political Economy, and shall be payable in money to the successful candidate.

2. The candidates for the prize shall be members of the University, who, having commenced residence, are not of more than six years' standing from matriculation on the first day of the Easter Term of the academical year in which the subject is announced.

3. The Adjudicators shall be the Professors or Lecturers of the University in Political Economy for the time being, and two persons to be nominated by the Vice-Chancellor and the Donors respectively, and appointed by Resolution of the University Council; and the prize shall be awarded to the writer of the Essay which, in the judgment of a majority of the Adjudicators, certified under their hands to the Vice-Chancellor, is the most deserving.

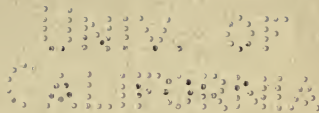
4. The subject of the prize shall be fixed by the Adjudicators or a majority of them; but the subject of the first prize shall be fixed by the Donors, subject to the approval of the Vice-Chancellor and the Professors or Lecturers in Political Economy.

5. The times when the Adjudicators shall be appointed, the subject announced, and the Essays sent in, shall be fixed from time to time by Resolution of the University Council.

6. The Donors of the prize reserve to themselves the right to determine the said prize on giving one year's notice to the Vice-Chancellor.

7. The prize shall be called the "Cobden Prize."





# FACTORY ACT LEGISLATION.

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A THOROUGHLY detailed and precise treatment of this subject would presuppose an intimate and technical knowledge of the conditions of all the great branches of industry which have from time to time been brought under the Factory Acts, and of their development during the last hundred years. For reasons, then, which will only be too painfully obvious, no attempt will be made in this paper to do more than summarize, in the fewest possible words, what seem to have been in the past, and what, by inference, will be in the future, the main marked general results of Factory Legislation.

## I.—HISTORICAL SKETCH.

The best historical sketch is Herr Ernst von Plener's, first Secretary of the Austro-

Hungarian Embassy in London. A point that he clearly brings out is that the legislation of the first thirty years of this century was practically without any result at all ; it was almost inoperative, for the very simple reason that it was never properly enforced ; the local justices were to appoint visitors to inspect the mills, but as they neglected to do so the law became virtually useless. The first four or five factory Acts may be neglected then as far as any actual results were concerned. Progress was made in 1833, when the system of Crown-appointed inspectors was introduced. But as their number was limited to four, the staff soon proved quite inadequate, and Lord Ashley called attention in the House of Commons to the fact that their reports for 1835 showed that no less than one out of every eleven mill-owners had been convicted of infringing the Act, and that no doubt the proportion would have been much larger but for the defiant attitude of the local magistrates, themselves very often connected with or interested in



the trade. For it was one of the weak points of Lord Althorp's Act that it had failed to re-enact the wise provision introduced in 1825 by Sir J. Cam Hobhouse, to the effect that, no justice being a proprietor or master of a mill, or the father or son of such, should act as justice in respect of factory law. During this, the first period of their existence, the inspectors met with strenuous opposition from all classes, masters and foremen, parents and operatives (Reports, 1874—Redgrave). Every kind of device was resorted to in order to evade their vigilance. One very great source of difficulty was the newly-invented false relay system, of which Karl Marx says so much ("Capital," I. 264). The commissioners of 1832 had proposed the employment of children in double sets. Out of this suggestion arose what has been called the "false relay" system, or system of "shifts" as opposed to regular relays. Children, instead of being employed in double sets, each set working six consecutive hours, were subject to be brought

into the mill and discharged again several times in the day ; and as long as they were not employed altogether more than the total 48 hours in the week, the terms of the Act were not infringed.

But the real result was that where the false relay system obtained, it was impossible for the inspector to detect even actual and flagrant disobedience.

To keep a record of the complicated arrangement of hours mapped out for each child was out of the question ; and so the abuse grew from bad to worse. Hampered at every turn, the poor inspectors were very despondent in their reports from 1833 to 1844 ; and the upshot of it all was that in 1844 they went to the Home Secretary, Sir George Grey, and pointed out that the Act as it stood could not be administered. The whole question of the hours of labour was fast becoming one of burning and public interest. At the elections of 1839 the electors catechised their candidates on four points :—The property qualification for Mem-



bers of Parliament ; primogeniture ; the Poor Law Amendment Act ; and the Factory Question. And this last, says Lord Shaftesbury's biographer, was probably the most important of all. So by the year 1844 the subject of an amended factory Act was fully ripe for discussion. The statute of that year, the second great factory Act, on the whole very largely increased the powers of the inspectors, and effectually checked the "false relay" system by providing that the hours of child labour should be reckoned from the time any child or young person began work. Von Plener says this Act was carried out better than its predecessors, and certainly for the next three years the normal working day in the regulated industries did not exceed twelve hours. But this was probably due as much to the general depression of trade as to improved administration. Manufacturers made a virtue of necessity and ran their mills short time because there was no demand for their goods. In 1847 a sudden and, as it proved, ill-judged step was taken, by the

passing of the Ten Hours Bill. The passing of this Bill was more purely a matter of party politics than had been the case with previous factory legislation. It owed its success to the support of Tory voters, at once anxious to set themselves right with the labouring classes, and to take revenge for the part the manufacturers had played in the repeal of the Corn Laws. Manufacturers were up in arms against what they looked upon as a thoroughly capricious piece of State interference; and they either openly defied or secretly evaded the new law. It was soon found out too that, after all, the Act of 1844, which still regulated *child* labour, was not absolutely clear and explicit in the matter of "relays." The "false relay" system—whether intentionally or not—seemed not to be forbidden in so many terms. The masters read the clause one way, the inspectors the other, and different magistrates in different parts of the country took opposite views. To put an end to this confusion and bring matters to a head, a test case was

carried before the Court of Exchequer in 1850. The verdict went against the inspectors, and the "shift-system," now legalized, threatened to become general. Once again it was impossible to carry out the law. "If there were twenty inspectors we could defy them all, if relays were allowed," wrote one manager, and his words, quoted authoritatively in the debate of 1850, probably expressed the general feeling of employers. And so the legislation of half a century was rendered inoperative and things were brought to a deadlock. Those for whose protection the Bill of 1847 had been, at least ostensibly, brought forward, felt themselves betrayed, and believed the Ten Hours Bill had been passed only to disgust them with all legislation. Clearly something must be done.

Judge Parke, who tried the test case, had given it as his opinion that the framers of the law had meant to prohibit the false relay system, but had failed to draw up the Act in terms clear enough to bear that construction. Lord Shaftesbury therefore argued

that the House was in honour bound to see to the carrying out of its intentions. But Judge Parke's opinion did not go wholly unchallenged, and there was considerable scepticism concerning the real intentions of the Parliament of 1844. Still it was generally felt that some amendment was imperatively needed, and even Mr. Bright, the most staunch and consistent opponent of factory legislation, decidedly desired to put an end to the uncertainty of the law in its present state.

The result was a compromise, in the shape of Sir George Grey's Bill, which fixed the normal working day for young persons and women in textile factories at ten hours and a half; children's labour to be regulated, as before, by the Act of 1844. Thus there came into existence the Act which has been called the "Great Charter" of English factory legislation, the basis of all succeeding statutes. From time to time the scope of the factory Acts has been enlarged, new industries have been brought within their compass, but the

general terms of the law have altered comparatively little since 1850.

It is most important to notice that this Act of 1850 practically made the normal working day ten and a half hours, not only for the protected classes—women and young persons—but for men as well. There is a very great deal written and spoken against further legislation to-day on the ground that Government must not interfere with the labour of adult males. But it is a rather quibbling argument to use after all; because though not actually directly, yet indirectly and quite as effectually, men's labour has been regulated ever since limits were set to the hours of women and young persons. For the various processes in a factory are so closely connected that it is impossible for one class of operatives to go on working alone after the others have left the mill. This result was clearly foreseen. For instance, in 1844 Sir James Graham had pointed out that the real question was not so much as to what should be the legal hours of women and children; but rather whether



men should be employed ten hours or twelve (Hansard lxxiii. 1103). Without a fixed normal working day, any real administration of the law had over and over again proved most difficult. The Act of 1850 made ten and a half hours the standard day in the textile factories, and from that time to this the intentions of Parliament have been, on the whole, well carried out by an efficient staff of inspectors. The recent return by the Board of Trade shows, I believe, that ten and a half hours have been the general rule in the textile trades since 1850. Effective legislation began then, and practically not till then.

Starting from 1850 we may broadly distinguish three main periods in the history of factory legislation. From 1850-64 it was confined, speaking generally, to the textile factories. It is true a Printworks Act had been passed as early as 1845, but that proved only a dead letter; and the Bleachworks and Dye-works Act of 1860 allowed so much overtime that it, too, was practically useless. For it may

be taken as an axiom that if you allow overtime to any very great extent, you quite do away with the efficacy of your law. To-day there are plenty of trades where overtime is the rule instead of the exception ; and if a permissive Eight Hours Bill, say, were passed to-morrow, merely defining a " day " to mean eight hours, which seems to be all that the American Bills have done (see Mr. Bradlaugh, *New Review*, 1889), then the only result would be that overtime wages would begin an hour or a couple of hours earlier. The great majority of the working class desire more pay, not more leisure. *The first period* of efficient factory legislation may be taken to lie between 1850 and 1864. In 1864, in consequence of the early reports of the Commission on Children's Employment, certain non-textile branches of industry were brought under the law ; such as the manufacture of earthenware, fustian cutting, the manufacture of cartridge and percussion caps, &c. The Bleachworks Act was also amended. Three years later, again the list was very considerably enlarged. This

year, 1867, ought to have been still more important a date than it actually was in the history of factory legislation, for it saw the passing not only of the Factory Acts' Extension Act, but also of the Workshops Regulation Act. But this latter was left in the hands of the local authorities, who failed to carry it out. *Our second period* would be from 1864 to 1871, when factories non-textile as well as textile were under State inspection. *The third stage* was reached in 1871, when the workshop Act was transferred to the hands of the factory inspectors. We have, then, these three groups of years—1850-64, when the law touched only textile factories; 1864-71, when it was extended to include non-textile factories; 1871 to the present time, when workshops have also been brought, to some extent, at least, under supervision and regulation. Every system of classification must be more or less arbitrary, but this seems fairly convenient, and as good as any other. It corresponds tolerably well, too, to Marx's classification of the different kinds of industry. He says something to



this effect : that industries may be grouped under four heads, according to the nature of the tool or machine used, its simplicity or complexity. Every kind of labour, roughly speaking, is either a form of *domestic industry*, or of *handicraft*, or else a branch of *manufacture*, strictly so called, or, lastly, a type of the *factory* system proper. "Domestic industry" is the earliest kind of work, it includes all unskilled manual labour, all the labour that can be done with the least help from tools, other than those which nature supplies in the shape of human muscles. As soon as a tool is invented, unless it is of the very simplest kind and accessible to all, so soon specialization and division of labour begin ; and it may be truly said that the man who first used a tool set on foot an industrial revolution which is not completed at the present day. The adoption of some simple manipulating tool characterizes this second form of industry, the "handicraft" form. And if the introduction of simple tools leads to division of labour, so division of labour in its turn brings about a

concentration of population. Improvements in modes of transit, improvements in the transmitting mechanism of production, a general tendency towards production on a large scale—these are the main features of the “manufacturing” age. Finally, the concentration of many machines is followed by the use of steam power, and the “factory” system is reached.

Legislation has been brought to bear on the last three forms; hardly on the first. The textile industries, specially the cotton and worsted branches, are types of the most highly developed “factory” system. The trades newly added in 1864 and 1867 may stand as fairly representative of “manufacture” in the more correct sense of the word; and the Act of 1871 brought the law down to the level of “handicrafts.”

The only kind of industry which has never been more than nominally subject to control is industry carried on in a private house—domestic industry.

A “workshop” was defined to mean *only a place to which the employer had the right of access.*

This definition at once put beyond the pale of protection all the many workers in, for instance, the sweated clothing trades.

It is true that the Consolidating Act of 1878 has certain provisions concerning "domestic workshops," but these are, for the most part, very meagre and inadequate.

## II.—EFFECTS ON TEXTILE INDUSTRIES.

Experience, then, has shown us the factory Acts at work in the sphere of the factory, the manufactory, the workshop. The most important point of all for consideration now is the effect of legislation on the great staples of our national trade—the textile industries. "What," we may ask, "have been the economic effects of the factory Acts on the textile trades during the last forty years?" and perhaps we may pay particular attention to the years 1850–64, because then the experiment in this special direction was being the most narrowly watched, and the precedents for all future legislation were being built up.

Factory legislation has always been primarily sanitary or educational in aim. Its champions have always supported it mainly on these grounds. As *economic* measures the various Acts have stood almost entirely on the defensive. "The Factory Act of 1844 was passed," writes Mr. Walker, "against the opposition of the majority of English economists in Parliament and out" ("Wages," footnote, p. 162). Indeed, by way of direct argument in favour of such legislation, on its economic side, very little has been said in the many debates on the subject. In the old days Lord Shaftesbury and his opponents played a veritable game of cross questions. They attacked him, for instance, with the threatened ruin of English trade and the pauperization of the working class. And he would reply by pointing to the great sanitary or moral or religious benefits which must accrue. And so it has always been, to some extent at least. There has remained throughout a decided reluctance to discuss the matter from other than a sanitary or educational standpoint; a distinct

hesitation about facing the problem in its more purely economic aspect. So that as late as 1878, Mr. Cross could say no more for his Bill than that "it would infringe no principles of Political Economy further than they had been already infringed by the operation of the Factory Acts which had received the assent of the Legislature." "It only carried out the principles which had been admitted in all previous legislation, for it was based on sanitary and educational grounds" (Cunningham, "Politics and Economics").

To find the *economic* arguments on the question of factory legislation, one must look, then, chiefly to the speeches of its opponents. In other words, most of the prophecies were prophecies of woe. It is well to glance for a moment at these anticipated results. Herr Plener has tabulated them, and the principal were these :—

1. *Diminution of production.*
2. Rise in cost of production.
3. Fall in rate of wages.
4. Fall in rate of profits.



5. Rise in prices.
6. Loss of foreign trade.

I have underlined the first, because that seems to be the basis of all the others ; all the others, to a very great extent, stand or fall with it. If it were certain that the factory Acts would tend to decrease the amount of material wealth produced each year, then there would be very good ground for presuming that both wages and profits must fall. Somebody must bear the loss. Would it be the employer or the employed, or the consumer, or all three? It seemed madness for the mill hands to expect twelve hours' wages for ten hours' work ; wages must inevitably fall. But, since to reduce wages in proportion to the reduction in the amount of work done, would simply be to bring the working classes to the verge of starvation, it stood to reason that much of the burden would have to be borne by the *manufacturer*. The manufacturer, failing to obtain an economic return in the shape of profit, would doubtless leave the business, or else, if

possible, adopt the readier plan of raising prices ; in other words he would shift part of the loss on to the shoulders of the *consumer*. And grant ever so slight a rise in prices, you predict grave danger, if not absolute ruin, to foreign trade.

Such, very briefly, are the objections which have been raised against the Factory Acts from the earliest times till now. They were used in 1833, in 1844, and again in 1874 and 1878. And the identical predictions are being made to-day in and out of Parliament in reference to the several proposed innovations now before the public. The old debates, as far as I have been able to read them, constantly re-echo these mournful forebodings. Sometimes it is one, sometimes another of the different points that is most emphatically insisted upon ; as in 1844, for instance, when Sir Robert Peel and Sir James Graham, who virtually constituted the Government then, opposed the Bill of that date, the former chiefly on the ground of danger to foreign trade, the latter by laying

special stress on the probability of a beggared labouring class. But one or other, or all of these objections have always from 1833 till the present day formed the ultimate basis of everything that has been written or said against this form of State interference. Dr. Cunningham calls the debate of 1874 "the last great battle on the subject of factory legislation." It was then that the whole question of interfering with women's labour came up for discussion, and then that the last great step was made in the law as it applied to the textile industries—the reduction of the hours of women and young persons to ten instead of ten and a half a day. Mr. Fawcett was the chief opponent of the Bill, and he certainly spoke most powerfully. But in the main his speech had in it nothing really new. And one old member, Mr. Baxter, had the courage to get up and say that he could remember the debate on the Ten Hours' Bill, and that then precisely the same arguments had been used as Mr. Fawcett had used that day. The great question therefore is: Have



or have not these predictions proved right and true? Have they been justified by the event? And, first, as regards that fundamental prediction about diminution of produce; what has experience to teach on that head? Now it surely needs no very abstruse reasoning to prove that the prophecy in its extreme form—utter ruin to English trade—as, for example, Mr. Senior and Miss Martineau had it, proved altogether at fault. It is a fact patent to every one, that the English textile industries during the years 1850-63, developed enormously, instead of dwindling. The exports of cotton yarn were, in round numbers :—

In 1850, 1,000 million yards	} (quoted in debate of 1874).
„ 1860, 2,000 „ „	
„ 1870, 3,000 „ „	
„ 1872, 3,500 „ „	

Or to take a rather different point of view : From 1839-50, the number of mills in Lancashire increased 4 per cent. ; from 1850-56, 19 per cent. ; and from 1856 to 1862, 33 per cent. (Marx).

There is not the slightest necessity to waste words on proving what is so self-evident—that English industry flourished and spread amazingly during the twenty years immediately succeeding the introduction of the factory Acts. But the point is, would this prosperity have been more or less, had there been no legislation? Can we establish any connection between this rapid growth, and the simultaneous interference of the law? It has been said that the “State is the least of the Powers which govern us”; and it is well to remember, as Herr Plener admits, that, after all, the subject of factory legislation is not one of the first importance. If there was one cause which far more than all others contributed to this great development of English industry, it was not State interference but the abolition of it. Free Trade it was that opened up the markets of the world to England’s wares.

The Duke of Argyll writes, however, in his “Reign of Law” that “During the present century two great discoveries have been made

in the science of government ; the one is the immense advantage of abolishing restrictions on Trade, the other is the absolute necessity of imposing restrictions on Labour." This seems paradoxical.

At first sight the principle of Free Trade and the principle of Factory Legislation appear to be entirely at variance ; and the results of these two principles in action must be, it would seem, quite opposite. Free Trade vastly increased the demand for English goods ; and then came legislation which to all appearance would of necessity curtail the supply.

But *did* the Factory Acts really tend to decrease the amount of annual produce ? That is the all-important point.

On the whole, all experience seems to warrant an answer in the negative.

The assumption that production must necessarily be diminished, rests on a fallacy—the fallacy that *quantity* of work done is always in proportion to the *time spent*.

There are two other factors which have to

be taken into account in any question of work. Besides the time a man spends, there is, first the *nature of his tools*, and secondly *his own capacity for work*; the objective and the subjective efficiency of labour.

Other things remaining the same, amount of work done varies as the time spent. But other things did not remain the same in this present case. Moreover, all evidence goes to prove that legislation had much to do with altering these "other conditions," the efficiency of the labourer, and the efficiency of his tools.

Given an increased *demand*, due to Free Trade, the other element necessary to the growth of industry—an increased *supply*, was rendered possible only by the marvellous extension at this time of the factory system. The whole natural tendency of modern industry has been towards the factory system and production on a large scale; nevertheless, the Factory Acts may be said to have given just the needful stimulus to the adoption of the new great machinery, and so to have

played a very material part in building up the factory system on what Karl Marx deems its only firm and adequate basis.

Dr. Taylor, in his "History of the Factory System," writes that: "The popular saying that 'Necessity is the mother of Invention' is a concise summary of the philosophy of the whole subject."

And what necessity could be more pressing than a well administered Act of Parliament reducing the hours of labour by, at the very least, one and a half a day?

Mr. Redgrave wrote in 1852: "More economical application of labour has been rendered necessary by the diminished length of the working day, and in most well-regulated mills an intelligent mind is always considering in what manner production can be increased with decreased expenditure."

Marx points out that at the time he wrote (1873), a weaver could make in a week of sixty hours with his new power loom no less than twenty-six "pieces" of cloth, whereas the old loom had made only four.



And soon after 1850 the cost of weaving such a piece had fallen from 2s. 9d. to 5 $\frac{1}{8}$ d !

Marx quotes an interesting passage from the "Journal of Arts" for 1872, by Inspector Horner. There, the inspector looks back to his own views on factory legislation in 1844. He himself had quite believed then that the perfection of economy of time and labour had already been reached, and that the manufacturers were right in thinking that any further quickening of the speed of prime movers was impossible, consistent with "the preservation of the quality of the article manufactured ; the preservation of the machinery from too rapid deterioration ; and the capability of the workman to follow the motion without a greater exertion than he could sustain for a constancy."

Mr. Horner then proceeded to point out how erroneous his former opinion had been ; how much he had " underestimated the elasticity of machinery, and of man's labour-power, both of which," says Marx, "are stretched to an extreme by the compulsory shortening of the working day."

Various quotations might be made from the inspectors' reports of this time to the same effect. "The great improvements," wrote one of them in 1858, "made in machines of every kind have raised their productive power very much. Without a doubt the shortening of the hours of labour . . . gave the impulse to these improvements. The latter, combined with the more intense strain on the workman, have had the result that at least as much is produced in the shortened (by two hours, or one-sixth) working-day as was previously during the longer one." (See also Reports 1854, 1856, 1860, 1865, &c.)

We may fairly conclude, then, that the first result of the factory Act was this—it fostered the growth of the factory system.

With regard to the second great result, the increase in the vigour and intelligence of the labourer, and, therefore, to some extent at least, in his capacity for work—with regard to this result, it will be easier to speak

definitely when we come to consider the effects of the Act on industries other than textile, where the individuality of the workman is better preserved, and any improvement in his efficiency is more clearly traceable. For where the factory system attains its highest form, there the personality of the labourer is to a great extent lost, and he becomes part and parcel of the whole complex mass of mechanism which constitutes the "factory." Nevertheless, though it may not be so easy to trace the exact amount of the economic advantage here, as in the case, say, of such an industry as the potteries, yet it is perfectly certain that a fair portion of the increased production may quite justly be put down to the improved physical and mental energy of the mill-hands themselves. That was Lord Shaftesbury's great argument. In May, 1847, for example, when he went down to the House purposely armed for once to defend his Bill against *economic* attacks, he brought forward a great many cases of equal or increased production arising simply from



improved vigour on the part of the workmen in mills where the owners had voluntarily reduced their hours by way of experiment. "I could not understand," one master wrote, "how it was that our men could turn off as much work (and some a little more) in eleven hours as ever they did in twelve. I said to one of them, 'John, will you tell me how it is that you can do more work in eleven hours than you did in twelve?' 'Why,' said he, 'we can lay to in eleven hours a day better than we could in twelve, because we get more rest at night and we are in better spirits all the day through, and besides, the afternoons were not so long.' He could spin, he said, ten years longer if Mr. G—— would keep on eleven hours."

The truth is, there is a law of "Diminishing Returns" from labour as from land. The difficulty is to determine when that law begins to come into operation. The critical point varies in different countries, among different races, in different industries; and it

varies, too, between individual workmen. There can be no doubt that before the passing of the factory Acts little children, and adults as well, were worked beyond this limit; a false economy was practised. Dr. Cunningham's verdict is concise and to the point. "There is an amount of tension," he writes, "which the human frame can bear, and to prevent men from going beyond it was really to establish the textile industries of Great Britain on a far firmer economic basis" ("Politics and Economics"). Factory legislation thus helped forward production in the textile industries in two ways: by hastening the development of production on a large scale or the factory system, and, secondly, by heightening the efficiency of each individual worker. But just one warning thought occurs here, and it is this: the first result has always a certain tendency to weaken the force of the latter. Indeed, the great increase in the speed of the machinery which followed on the introduction of the Act of 1833, and the consequently greater

strain on the labourer, was made one of the grounds of attack on further legislation by Sir James Graham in the debate of 1844. And again it was one of Mr. Fawcett's points in 1874. He referred, for instance, to the advice given by a doctor at Dukinfield, who warned the mill-hands not to exchange less speed and longer hours for greater speed though coupled with a shorter day.

Saving of labour was effected by two means: the speed of the machinery was increased, and the labourer was given more machinery to watch. In 1841 one spinner with three piecers attended to one pair of mules with from 300 to 400 spindles. Thirty years later one spinner and five piecers watched 2,200 spindles producing seven times as much yarn! As early as 1863 evidence was given by Mr. Ferrand before the House of Commons on this question of the wear and tear of the physical powers of the operatives, caused by the constantly increasing rate of the machinery. "I have been informed," he said, "by delegates from sixteen districts of

Lancashire and Cheshire, on whose behalf I speak, that work in factories is, in consequence of the improvements in machinery, constantly on the increase. Instead of, as formerly, one person with two helps tenting two looms, one person now tents three looms without helps, and it is no uncommon thing for one person to tent four. Twelve hours work, as is evident from the facts adduced, is now compressed into less than ten hours. It is therefore self-evident to what an enormous extent the toil of the factory operative has increased during the last ten years." This was one of the most prominent arguments brought forward by the champions of a Nine Hours Bill in 1873. The manufacturers retorted that the new machinery had brought about a diminution of actual labour, and that the workmen were, on the whole, the gainers. Of course it is very difficult indeed to strike the balance between these conflicting assertions (see Redgrave Reports, April, 1872). All one can safely say is this, that the general tendency of legislation has always been to improve the

health of the workpeople ; but there seems fair ground for believing that, to some extent at least, this tendency is thwarted in the case of the great textile industries by the continual improvements in large machinery, specially in prime movers. The growth of the factory system made labour laws a necessity ; and if it is one of the inevitable results of legislation that that system shall become more and more universal, may we not venture to suggest that there is an element of soundness in the seemingly paradoxical argument, that in every successive Factory Act we have in some degree the justification for another ?

So far the question has been purely one of Production ; it now remains to be seen how legislation affected Distribution. To begin with the effect on *Wages*. The opponents of the Factory Acts have often charged its supporters with deluding the labouring classes by leading them to believe that State agency could enable them to earn as much or more pay for less work ; such a result was incredible,



said they; wages must fall. The precise amount of the predicted fall varied. An example of an extreme estimate is to be found in Sir James Graham's speech in 1844. Masters would have to deduct at least *one-seventh* from their workmen's wages, he said, in consequence of the decrease of quite that amount in their labour, and another *twelfth* to recoup themselves for the depreciation in value of their fixed machinery. The total fall, therefore, would be about 23 per cent. Lord Shaftesbury, on the contrary, was confident that the fall would not be more than one-tenth or one-twelfth, though he pointed out the small economies by which the working classes were prepared to meet a loss of even one-sixth in consideration of the many sanitary and other benefits they would derive from the operation of the Act. Naturally it is difficult to say what exactly was the view of the majority of the working population; but the probability is that they held a very different opinion from that set forth by the manufacturers. Herr Plener shows that in the



early days of factory legislation the operatives argued somewhat as follows :—

They thought the factory Acts would bring about—

1. *Decreased Production* ; hence

2. Rise in the price of goods and wages alike, so that in the end the workmen would receive twelve hours pay for ten hours work.

3. Notwithstanding the higher prices, general consumption would not decrease, and therefore

4. The unemployed would find work.

Here again it is noteworthy that the primary assumption was a decrease in the amount of produce. That assumption was not borne out by the event. Therefore there is no *à priori* probability that any of the arguments based on it should prove sound. Granted an increase instead of a decrease in production, and the possibility and indeed probability is at once admitted of a rise rather than a fall in wages. The amount of produce is the fund from which wages are drawn ; it constitutes the maximum limit of

wages. "I hold," writes Professor Walker, "that the moment the aggregate product of labour and capital is increased by inventions, which are a clear gain of power for the benefit of all, that moment a sufficient economic reason exists for an advance in wages in some degree corresponding."

But to look a little more carefully into the matter. The rate of wages prevalent at any time is determined by the ratio of the number of labourers desiring places to the number of places open for them; in other words, by the Supply of labourers as compared with the Demand for them. How did factory legislation affect the Demand for labour? The Factory Acts reduced the hours of labour for children from twelve or more to six, and of young persons and women to ten and a half. The practical result was the fixing of the normal working day at ten and a half hours for all hands employed except children, and at something less than an average of six for all children. Roughly speaking, the hours of child labour were reduced by at least one-

half, and of all other labour by at least one-sixth. Hence, if the old amount of production was to be kept up, it would seem that six men, women, and young persons must be needed under the new *régime* instead of every five employed in previous years, and two children where before only one had been required.

But the question of the results of factory legislation is too complex to be settled at once by simple rules of arithmetic. We have seen that as soon as legislation was brought to bear on the textile industries, every effort was made to economise time and labour by the introduction of better machines. What, then, is the general effect of the adoption of new machinery in any given industry on the demand for labour in that industry ?

Perhaps it may be briefly stated as follows : The immediate result is a lessened demand for labour. But this effect is rarely permanent. New and better machinery means diminished cost of production, and diminished cost of production leads to a fall in price. With the

fall in price comes an increased consumption, and the final result is an extension of the industry and a greater demand for labour. Something of this kind happened in the case in point. Manufacturers, under pressure of the Factory Act, resorted to better methods of work to keep up production. These better methods proved even more satisfactory than had been expected. Cost of production fell enormously, prices could be lowered without loss of profit, consumption increased, more capitalists were attracted into the business, new mills were established to meet the growing market, and new mills meant more work-people (see Reports 1854, 1855, &c., for great increase in number of factories at this time). Mr. Horner's report for the half-year ending October 1859, is specially interesting from an economic point of view. He writes: "The experience of nearly twenty-six years, extending throughout the whole time the existing law has been in operation, convinces me that the legislative interference for the regulation of the labour of children, young persons, and

women in factories is now viewed by many of the occupiers of those works as having done, and as continuing to do, a great amount of good, without any injurious interference with the prosperity of those trades." And he goes on to note, as two of the chief effects of legislation, its non-limitation of production, and an increase in wages. "In no branch of textile labour are wages reduced since 1833," wrote Mr. Baker the same year; "there is an average increase of 12 per cent., and in one instance of 40 per cent." There is a fairly significant table given fourteen years later by the same inspector, comparing the rates of wages in the cotton trade under the old system and the new (Reports, 1873). A great rise in the wages of factory operatives has been one of the marked features of the industrial history of the last forty years. There can be little doubt that this rise was, to a great extent, the result of legislation. The hours of labour in textile factories have been successively reduced from ninety to fifty-six and a half a week, and the rate of wages has uniformly



risen (See *Contemporary Review*, December, 1889. Sidney Webb, "The Limitation of the Hours of Labour"). "Political economists are emphatic in their conclusion that the effect of the Factory Acts has been undoubtedly to raise the real wages of the working classes as a whole."

But there are two parts to every wages problem. First we must ask, What effect has such and such a measure on the *rate of wages*? And secondly, What effect had it on the *number of those employed*? Naturally there is a close connection between these two questions; but they are not absolutely dependent the one on the other. The answer to the one is not determined entirely by the answer to the other. It is quite possible for an increase to be effected in the rate of wages, without a corresponding increase taking place in the number of workpeople. If it is an incontestible fact that during the last forty years a great rise has taken place in the *rate of wages*, it is no less certain that the increase of pro-



duction has not been accompanied by a proportionate increase in the *numbers employed*. The report of the inspectors for the six months ending October, 1862, shows that, while in Lancashire the number of mills increased enormously during the period 1839 to 1862, the number of mill-hands diminished relatively. There was a rather interesting description the other day of a gathering of old hand wool-combers at Keighley.<sup>1</sup> One of the speakers, Mr. Holden, M.P., "referred to the beginnings of his attempt to invent machinery for the combing of wool, and the compunction he felt at doing anything that might cause an old industry to go down. He was convinced, however, by a pamphlet on 'The Results of Machinery,' by Lord Brougham, that all the successive improvements in machinery tended to increase the number of people employed, and to benefit the whole community by cheapening the cost of production. And he now felt quite sure

<sup>1</sup> *Manchester Guardian*, March 31st. "An Old Yorkshire Handicraft."

that, at a moderate estimate, ten times the number of persons were now engaged in the wool industry that there were when wool was combed by hand." Marx, quoting from the inspectors' reports, wrote: "It was only during the decade preceding 1866 that isolated details of the wool manufacture, such as wool combing, were incorporated into the factory system." In this particular instance, then, we may say legislation tended to augment very considerably the number of persons employed. But one could hardly prove this to be an altogether typical case, I think.

The wealth of Great Britain in 1881 amounted to treble what it was in 1851; yet practically the same total number of wage earners were employed at the two periods in the five great staple industries of agriculture, mining, textile manufactures, transport, and machine making (*Nineteenth Century*, April, 1890; Macdonald, "The Case for an Eight Hours' Day"). The throwing out of employment of great numbers of workpeople was one of the generally anticipated results of factory

legislation. The prediction proved true up to a certain point. But not for the reasons alleged ; not because capital was withdrawn from the protected industries, and mills were shut up, but because machinery came into competition with human labour. There can be little doubt that the factory Acts had, specially during the earlier years of their operation, a tendency to throw certain classes of workers out of employment. Every period of transition brings pain to some section of the community. But we may venture to believe that those thrown out of work by the factory Acts were precisely those who never ought to have been employed—the very young, the old, the infirm and diseased. Prior to the factory Acts persons were employed in factories who were physically unfit to do the work. Legislation put a stop to this, and what was the result? Simply that masters found it was in the end better even for their own interests that the health of their work-people should be respected.

What they had done from compulsion they

soon did voluntarily ; they refused to employ any but the strong and able-bodied.

“ To judge from the evidence of the Factory Employment Commission,” writes an inspector in 1868, “ it was absolutely necessary to interpose some machinery by which little children should not be put to work when physically unfit.

“ A generation has passed. The manufacturer calculates the worth of every hand he employs ; the number of children rejected by the certifying surgeons is so small as to be inappreciable.” Above, when we said that the demand for labour increased, it would have been more correct to say that a change took place in that demand. It was not so much that a larger total number of workpeople were wanted, but rather that the employers insisted on having only the vigorous and intelligent. In other words, the standard of labour in the protected industries was raised, and the wages paid for that labour rose too.

If we ask, then, what became of the un-

employed? the answer must be that they took refuge in those branches of industry not yet under the Acts.

Clearly the constant tendency of modern industry is towards the perfection of the factory system, as distinguished from the earlier stage of "manufacture" proper; "handicrafts" are dying out and passing into "manufactures"; and lastly, "domestic industries" are being converted into "handicrafts."

Those thrown out of employment in the factories found work in some branch of manufacture, allied, probably, to their old calling. No doubt they would be tempted, in the first instance, by the hope of higher wages in the as yet unprotected trades; but this increased rate of wages would not be long maintained, while the workers would be constantly subject to an ever-increasing pressure of overwork. Then, when a further extension of factory legislation brought about a fresh revolution in industrial methods, the weakest again must go to the wall, and so at last sink down to



the level of the poorest paid unskilled manual labourers.

On the 26th of last February, Mr. Buxton pointed out, in the debate on the second reading of the Government Factories and Workshops Bill, that "it was proved before the Royal Commission that the result of carrying factory and workshop regulations down to a certain point, and no further, was that to a large extent work was driven out of the regulated establishments and into places unregulated and uninspected."

On the whole, then, factory legislation tends to press heavily on the very weakest class of workers. Their last asylum is some hitherto unregulated branch of domestic industry. Such a refuge, for instance, the "wearing apparel" trade has been. In the light of recent revelations it is interesting to read an early warning on this point by Karl Marx:—

"The number of those employed in this particular trade during the year 1861 was 1,024,277, or about as many as are absorbed by agriculture and cattle breeding. We



begin," says he, "to understand what becomes of the immense quantities of goods conjured up by the magic of machinery and of the enormous masses of workpeople which that machinery sets free" (Capital II. 475). And he also quotes the evidence of Mr. White, one of the commissioners of 1863, "who visited a military clothing manufactory that employed 1,000 to 1,200, almost all females, and a shoe manufactory with 1,300 of these, nearly half being children and young persons."

Therefore, without attempting to endorse Marx's sweeping conclusion as to the general effect of machinery on the demand for labour, we may take note here perhaps of one more incidental argument for extending factory legislation, when once the first step has been made.

But at the same time one is warned not to regard legislation, in the shape of any of the proposed new Bills, as a final solution of a great social problem like that of the unemployed. For instance, to take the case

of the most advanced proposal, now before the public—the Eight Hours Bill,—it is argued by some that the passing of such a Bill would give work to a large proportion of those now out of work. Thus Mr. Cox (in the *Nineteenth Century* for July, 1889), calculated to a nicety the number of persons at present unemployed to whom such a law would give the means of earning a livelihood. He evidently left out of his reckoning the fact that all past legislation has been attended by an increase in the efficiency of labour, brought about by one of two means—either by the adoption of better machinery, or by the employment of a more vigorous class of workers. Though the total result has undoubtedly been a rise in the rate of wages, yet it is by no means so easy to show that this rise has always been accompanied by a like increase in the number employed.

It seems unwise to speak with such absolute mathematical certainty as Mr. Cox does on this point. All that can be reasonably expected as a consequence of a measure

like this, is not that the actual number of wage earners will be enormously augmented, but that strong able-bodied workers will be sought after more and more in every branch of industry.

The great opposition offered to the passing of the Acts by a large majority of manufacturers shows the general fear to have really been rather that *profits* would be cut down than that wages would fall. In the light of what actually did happen, one is tempted to doubt the entire sincerity of those mill-owners who so loudly foretold a fall in wages. The event proved that neither a fall in wages nor a fall in profits must of necessity ensue ; because the grand assumption, a decrease in production, on which both predictions were based, turned out, as a matter of fact, to be fallacious. Yet even granting the possibility of an increased production, due to the substitution of better methods of work, there was much force in the argument that manufacturers would already have introduced those

better methods if they had foreseen any chance of benefiting themselves thereby.

“Why, I should like to know,” said Mr. Fawcett in 1874, “should the great textile manufacturers be singled out as so peculiarly deficient in independence and wanting in experience to manage their own affairs that they must be taken under the special patronage of a Government, whose peculiar mission it is to harass no industry and worry no trade.” Evidently Mr. Fawcett laid bare the very weakest part of factory legislation.

But perhaps even here such legislation is not absolutely indefensible. It was a strong position to take up that an employer may well be left to look after his own interests. Nevertheless, there are a few considerations which lead one to think this position not altogether unassailable. Mr. Walker has summed these up. He shows that for employer and workman each to understand and pursue his own true permanent interest, perfect competition is necessary; and that while this condition is the more conspicuously

absent in the labourer's case ; yet neither is the requirement ever perfectly fulfilled even where the employer is concerned. For "the employer on his part is always in a higher or lower degree unduly under the domination of immediate purposes." And then Mr. Walker goes on to enumerate some of these : "Haste to be rich, which often makes waste ; greed, which is always unwise ; parsimony, which disables from business success many a man who has every other qualification, rendering him incapable of ever taking a large and liberal view of his industrial relations ; rivalry, mutual jealousy among manufacturers, affecting the temper of business and warping production from its best course —these passions and infirmities among employers, quickened at times by stringent financial necessity, must more or less make a separation between their seeming present and their true permanent interests. Thus it becomes possible that an employer shall seek to crowd down wages, extend the hours of work, quicken the movement of the machinery,



admit children of tender age to painful and protracted labour, scrimp in the conveniences of production and neglect ventilation and sanitary care of his shop or his factory, all in the effort to increase the month's and the year's profits, though such a course is in the long run prejudicial alike to himself and his hands. Perfect competition would make the employer the guardian of the labourer's interests" ("Wages," p. 172). It is in such arguments as these that Mr. Walker finds the economic justification of factory legislation even from the point of view of its effects on profits.

We turn then to actual facts and ask "How has legislation affected that part of the total produce which falls to the manufacturer's share?" Mr. Hyndman (*New Review*, August, 1889) maintains that the past limitations of the working day have not decreased profits. "Far from it." And he refers for the truth of this assertion to the returns under Schedule D. Even had I con-



sulted these returns, I should perhaps hardly trust my judgment to decide whether or not the increase noticed by Mr. Hyndman is in any way traceable to the factory Acts. But I have seen the factory inspectors' reports from 1852 till 1883, and perhaps, on the whole, one may venture to take their evidence as more direct and fairly trustworthy. Their reports have been, as a general rule, quoted authoritatively in the House of Commons. Of course at times doubt has been thrown on their ability to form correct and impartial judgments on the weightier questions with which they are brought in contact; Mr. Fawcett, for example, said that though their evidence might be taken with regard to technical points of detail concerning, say, the proper ventilation of a factory, &c., yet they were not the people to be consulted on topics of more general interest and wider import, such as the effect of legislation on trade. But on the whole, Mr. Fawcett's opinion hardly seems to be the generally accepted one. Perhaps in the main we may agree

with the writer of a leading article in the *Manchester Guardian* of last February (27th), when he says, after summing up the principal features of the Government Bill, that "Mr. Matthews evidently relies largely on the judgment and discretion of the inspectors, and it may be freely admitted that the past records of such officials, not merely in this country, but wherever Factory Acts are in force, justify his confidence." Allowing, then, for a certain natural bias in the inspector's minds in favour of the Acts which it is their business to administer, I think we may fairly gather from their reports that but a very few years' experience of the actual working of the law was needed to materially alter the attitude of the employers. Thus in 1859 Mr. Redgrave wrote: "The law is fairly observed, the inspectors generally received cordially, rare are the instances when our duties are regarded as antagonistic to the interests of the manufacturer, even after proceedings." And in 1881 the inspector reports that "very few employers of any class are to be found

in the occupations under the operation of the Factory Acts prepared to say they would willingly return to the old system.”

Probably it would not be going too far to say that the great majority of manufacturers to-day would not desire to see the Acts repealed, and they would no doubt indignantly repel the insinuation that they are at the present time swayed chiefly by interested motives in their endeavour to bring about a further restriction of the hours of factory labour in India.

But just as, side by side with the general effect of factory legislation in raising the rate of *wages*, we had to notice an opposite tendency in the particular case of the very lowest and weakest class of workers ; so, too, if profits generally did not fall in consequence of the factory Acts, but rather showed some disposition to rise, that result was, nevertheless, accompanied by, and indeed was almost impossible without this further result, that certain classes of profits were utterly annihilated. The first effect of the Acts was the

introduction of new machinery. This entailed increased expenditure of capital. Naturally the small masters were powerless to compete with the large mill owners, who were able to invest in the new improvements, and ultimately to succeed better than before. During the decade 1853-63, no less than three hundred cottage factories were shut up. The struggle between the cottage factories and the factory system proper lasted twelve years, and ended in the complete ruin of the smaller works (Reports, 1865). This concentration of industry in the hands of fewer and fewer great employers of labour was being gradually effected by other and inherent forces ; but it was most certainly accelerated by factory legislation.

If we had to sum up in a single sentence the general effects of the Factory Acts on the textile manufactures, we should say that that legislation tended to enforce everywhere the principle of the selection of the fittest ; in other words, it helped to bring about the fittest use of capital, of invention, and of

human skill and energy ; and therefore it did not diminish production, nor lower wages ; neither probably did it lead to a fall in profits, nor a permanent loss of foreign trade.

The difficult question of the bearing of legislation on foreign trade can be only very lightly touched upon in an essay like the present. Perhaps the most obvious thought is this—No nation can long maintain a commercial supremacy unless its labouring class is strong and intelligent. If, in any country the hours of labour are such as to ultimately impair the vigour and intelligence, and therefore the productive capacity of the workpeople, then at once there is ground for legislative interference, and the truth of this proposition is not lessened because the country happens to have a great export trade. “For industrial purposes England, France, Germany, Switzerland, and the United States form, in reality, only one community.” Each of these countries is in the position of hesitating to adopt more stringent labour laws



for fear of thereby giving a temporary advantage to the other four (Cox, *Nineteenth Century*, July, 1889).

Yet, in the debate of 1878, Mr. Baxter went so far as to argue that if foreign competition had to be met, the best way to do it was to reduce the hours of labour for our own population ; and there are those who will assert to-day, as Mr. Webb does, that the English cotton-spinner finds competition keenest, not where the hours of work are longest, as in Russia and India, but where they are shortest, as in Massachusetts. Certain it is that the most perfect machinery, the largest system of production, the least amount of waste time, are all features characteristic of those industries and those countries where the shortest working day obtains.

Then again, of course, it is argued that many of the branches of trade which it is now proposed to bring under State supervision would be not at all, or very slightly affected by foreign competition. But this argument applies more especially to such proposals as



Lord Dunraven's, for instance. It touches the question of an extension of the *scope* of legislation ; the bringing of the law down to domestic workshops, &c., rather than the wider question of a further restriction of hours in all trades.

On the whole it is pretty generally admitted that this latter problem must be viewed not from a national only, but from an international standpoint. A great international federation of labour is becoming the more and more generally accepted ideal of the working classes ; there is ground for hoping that in the future some approach towards joint action will be made by the great industrial States.

No one can deny that the old objection to the Acts, for the alleged reason that they would endanger foreign trade, has lost much of its force since other nations have followed England's lead in the matter of factory legislation. " Nor need we be any longer afraid of foreign competition," wrote Mr. Redgrave in his report for 1868 ; " nor of the

advantages which our continental neighbours are said to possess over us in their unlimited power to work all hours with children of all ages, in their manufactories. Factory Acts are being deliberated in France, for example, by the manufacturers, in association with scientific help, with the experience of thirty-five years in England before them." Effective French law dates from 1874; the North German Parliament passed a Bill in 1869 limiting the age of children to twelve, and their hours of work to six, &c.; in Switzerland the conditions are stricter still (For details, see Walker, "Wages," and Plener). Mr. Mundella, in his introduction to Herr Plener's book, wrote, "In almost all countries where manufacture is conducted on an extensive scale and where the social and educational condition of the people is an object of public solicitude, steps are being taken to adopt and extend the principles of English Factory Legislation." He notes, too, that others have gone far beyond us. In various American States, such as Illinois, New York, California

and Wisconsin, the working day has been defined to mean eight hours ; while in others, Pennsylvania, Ohio, New Hampshire, Rhode Island, Maine, Michigan and Nebraska, ten hours is the limit. To these may be added Florida (ten hours), and Indiana and Connecticut (eight hours) (see Fabian Society's "Eight Hours' Bill").

The limitation, however, seems to be in many cases permissive and nominal merely (Mr. Bradlaugh, "Eight Hours' Movement," *New Review*, 1889).

Three Bills are now before the legislature of Massachusetts, for a reduction of the hours of labour to fifty-eight, fifty-six, and fifty-four respectively per week (*Manchester Guardian*, 13th April, 1891).

With regard to Canada, Sir Charles Dilke points out that the Royal Commission on the relations of Capital and Labour has lately recommended that all government contracts should be subject to a maximum of nine hours a day. "If in all that bears on co-operation," writes he, "the colonies are behindhand, the

reverse is the case with regard to factory legislation. The colonies possess legislation equal or superior to our own, as regards inspection, with the addition in some cases of provisions against sweating, in which we are likely to follow their example (*Problems of Greater Britain*).

The argument against factory legislation, founded on the fear of danger to foreign trade has, therefore, lost much of its weight since the early days of the factory Acts.

### III.—EFFECT ON NON-TEXTILE INDUSTRIES.

We have seen the factory Acts at work in the textile industries, and the importance of this part of the subject can hardly be over-estimated. Not only was the experiment in legislation being tried on an enormous scale, but since modern industry is ever advancing towards the perfect factory system, in watching the effects of the Acts on the textile industries one is in reality learning what tend to be ever more and more the normal

consequences of legislation. A very few words will sum up the effects on industries other than textile. On the whole they were precisely the same as those we have noted already. The inspectors' reports for the years 1864-77 are full of evidence as to the economic results of the new Acts ; and there is nothing which tells more for the general soundness of the principles of factory legislation than the ease and rapidity with which the conditions of the many various kinds of "new" works modelled themselves on the pattern of the law.

On the first introduction of the Acts of 1864 and 1867 such complaints as these were made : Factory legislation, it was said, might be very good for the textile industries, where everything was conducted with rigorous regularity, and where the cessation of the machinery entailed a loss of *quantity* merely, but it was decidedly bad for industries such as bleaching and dyeing, &c., in which the processes were of a chemical, not a mechanical nature, and where any sudden

break meant loss of quantity and ruin to the *quality* besides. Then, again, complaints came from the "season trades." Overtime, said the manufacturers, was an absolute necessity in industries dependent on short orders, specially short shipping orders; or in businesses like the clothing trades, ruled entirely by fashion and the seasons, where months of hard work alternated with as many months of comparative idleness. Out-door employments, too, influenced more or less by the weather, such as the manufacture of earthenware, building bricks, &c., seemed hardly likely to adapt themselves well to the new regulations. And then from various quarters there came the plea that, if the half-time system were introduced, enough children could not be found to do the work; adults would have to be employed instead, and thus both the cost of production must be increased and great suffering be brought on many poor homes where the children's wages were sorely needed. But, on the whole, these obstacles vanished wonderfully quickly. As before, in



the case of the textile industries, so now the almost immediate effect of legislation was an improvement in the instruments of labour. Legislation forced on everywhere the adoption of better tools or better processes, or changed for the better the whole system of production. For example, in the *potteries*, "power jiggers" and "turners" for turning the potter's wheel soon took the place of little children, as an inspector had predicted they would in 1865. Improvements were made in the system of stoveage; five or six new inventions are noted in Mr. Baker's report for 1865, and he specially mentions the one adopted at Minton's, which did away with all the old evils of over-heated rooms. Two years later the same inspector points to the great contrast between a new "bank," with all the modern appliances, and an old one. Mr. Redgrave reported, in 1874 that certain patented "Regenerating Gas" furnaces had been introduced into *glass works* to lessen the necessity for employing young persons at night. Great strides were made in the

*bookbinding* trade; for instance, the general adoption of the folding machine dispensed with the labour of women, which had been deemed absolutely necessary during one or two nights a week.

By the year 1872 machinery had been applied even to the weaving of cocoa fibre, and—most surprising result of all, as the inspector seemed to think—steam power was beginning to be used for horsehair weaving, previously an occupation of the purely “handicraft” type. Indeed, it would perhaps be hard to find a single trade brought under the Factory Acts’ Extension Act which did not undergo some change for the better in respect of the machinery used. Quite as noteworthy was the effect of the new law on the workman. The shortening of the working day enforced habits of regularity which left their mark on both the quality and quantity of the work done. The system of “piece” wages, too, was almost always adopted as soon as legislation was introduced, and this incentive to industry, combined with greater

vigour, worked wonders. Nowhere was this effect more apparent than in the case of the potteries. A full account of the state of the pottery trade at the time of the passing of the new Act is given by Inspector Baker in his report for 1865. From his description it would seem that many of the masters were men of small capital who simply found the shop and materials; everything, in fact, rested in the hands of the workmen; they contracted to make certain articles within a certain time at a fixed price, and they were free to employ as many children as they liked, pay them what wages they chose, and work them all hours. As a rule these potters were a most disorderly, drunken set of men, and their constant practice for years had been to spend Monday and Tuesday drinking, and then make up for lost time by over-working their assistants for the remainder of the week. The Factory Act did much here, and in all the industries it touched, to bring about increased order and diligence, and something like a regular system of working.

On the whole the fears of the manufacturers proved groundless. Overtime, in the vast majority of cases, was shown to be not an absolute necessity (see Children's Employment Commission and inspectors' reports *passim*). The largest number of children in the "new" industries were employed in the potteries. There the threatened dearth of half-timers did not come about. Inspector Baker showed the fallacy of that outcry in his report of 1865 by comparing the number of children in the potteries during that year (2,050) with the number (5,198) who, according to the census returns of 1861, would have been of fit legal age for work under the Act. Great destitution had been foretold in consequence of the wholesale dismissal of children or the fall in their wages. But experience showed that, as a general rule, it was not the poor widow who complained that the children did not get a whole day's pay for half a day's work, but rather the idle, drunken father, strong enough and well able to earn a livelihood for himself and his family without

forcing his little ones of five or six years or younger to a labour far beyond their strength.

Again and again the inspectors report a growing disposition in favour of the Act. Thus Mr. Redgrave (April, 1866) speaks of "The great success of the last series of Acts." "I constantly receive from employers and operatives warm expressions of thankfulness that their trades are under inspection with evidences of the boons derived." Mr. Baker, the same year, reports "The increasing acceptability of the Factory Acts' Extension Act. Manufacturers who had previously objected admit now that its operation has assisted them in their views and wishes with regard to their workpeople, and they have dismissed their doubts and fears." In short, "when the Act was introduced, nineteen-twentieths of the masters were against it; now nineteen-twentieths would be unwilling to part with it."

After the final Report of the Children's Employment Commission had been issued in 1866, the law was again extended to a

great number of new industries. The majority of these already worked less than sixty hours a week (see Tables Report, 1869). What better proof could be given that the principles of factory legislation were sound and practical? Objections were made then for the most part not to the fixed total number of hours, but to the times for beginning and leaving off work. There were also, of course, complaints about the necessity of occasional overtime. Under the new Act the Secretary of State was empowered to grant certain relaxations in special cases, should he see fit to do so. It is a fairly significant fact that Mr. Redgrave was able to report in 1868 "not a single prosecution." And again it is remarkable that the next year, out of a total of 12,000 works in his district, the number of notices issued for special relaxations amounted only to 577. Of these no less than 384 were for printers; and further, out of these 384, by far the greater number were for the smallest and worst



regulated businesses of all—the “jobbing printers” offices. [All the various kinds of printing works are enumerated in the report of October, 1868, and a very full description is given of the “jobbing printer’s” trade, in particular, as affected by the Act.] Subtracting 384 from the total 577, we get only 193 notices for all the other trades in this district put together. This proves, argued the inspector, “That the Factory Act hours from six to six are the most general, the most convenient, and those which the working classes as a rule prefer.” “On a review of what I consider to be the feeling of the whole body of manufacturers in my division, and I have gathered it from all quarters as best I could, I think I may say, that in as short a space of time, nay even in a shorter time than it took to reconcile the textile manufacturers to the restriction, the industries now introduced to it for the first time will be thankful that at last the master’s right in his servant’s time and the servant’s right in his own time has been legally recognized and settled” (Report, 1868).

Passages like this are of constant occurrence. Perhaps one or two typical quotations may be taken from the reports for 1877. For instance, we get a short summary such as this: "In many of the 'new' trades the hours were less than those allowed by law, but in many a rearrangement of hours was needed. This was granted, the difficulty was removed, and all the better people concurred willingly" (Redgrave).

A *résumé* of the work in London during the previous ten years shows that the fears as to the effects of the Acts on the "season trades" were unfounded. "You have come to ruin us," said a large manufacturer of artificial flowers to the inspector in 1867. A year afterwards he acknowledged that the Factory Act was a positive blessing, that he got as much work out of his hands in ten and a half hours as in twelve or fourteen, and that he effected a saving of £30 on his gas-bill besides. Another declared in 1876 that he "considered the alteration a great improvement both to the men" and to himself; there

was a saving of gas, and a clear gain of time due to the fact that the workwomen were not so subject to *fits*, the result of over-exhaustion! Examples of this kind might be multiplied indefinitely: "Even in the case of workshops, where day wages rule, the result has been satisfactory. In spite of the prophecies of ruin from foreign competition, I know hardly any branch of manufacturing industry which has not grown enormously during the last decade, and in spite of the vast variety of new machinery, the number of persons employed has increased very largely, and a substantial addition has been made to the rate of wages, specially the wages of the protected classes."

The great defect in the Act of 1867 was that it did not go far enough. With the exception of certain trades specially recommended for regulation by the Commissioners, the Factory Act applied only to places where *not less than fifty hands were employed*, all smaller establishments came under the Workshop Act.

The terms "factory" and "workshop" were thus technical, the distinction often purely arbitrary. There might be two workplaces close together, absolutely identical in all other respects save the number of operatives, and one business would have to conform to the Factory Act, the other would be practically free, because the Workshop Act was really a dead letter till 1871. Naturally the larger employers were loud in their complaints, and sought by every means in their power to dispense with the labour of the protected classes. The children flocked to the smaller unregulated industries which were invariably the worst organized; thus this Act failed signally as an educational measure and it was precisely as an educational measure that it had been passed. In 1871 the Workshop Act was handed over to the factory inspectors, and henceforth it was at any rate as effective as a proper system of administration could make it. But the old distinction between "factory" and "workshop" remained, and as the terms of the Workshop Act were far less

stringent than those of the Factory Act, the " fifty hands clause " still proved a stumbling-block in the way of the inspectors. Progress was made by the Consolidating Act of 1878, which placed factories and workshops on a more equal footing and established a better system of classification. But the real question lay deeper. There is much that legislation still leaves untouched.

The present Factory and Workshop Act applies to the following classes of industry :

1. Textile factories employing steam or other mechanical power.
2. Certain specified non-textile factories, whether power is used or not.
3. Workshops employing women and children.
4. Bakehouses.
5. Domestic industries regularly pursued (other than straw plaiting, pillow lace making, and glove making).

But these last three classes are almost entirely free from control, as has been shown by the Report of the Commission on Sweating

(see Sidney Webb, *Contemporary Review*, December, 1889).

As early as 1866 Mr. Redgrave wrote that almost the only objection to the Act of 1864 was that it did not extend to trades "whether carried on in what is technically called a 'factory,' or in other places, notably to a trade when carried on in a house by a father and his family." A report for 1872 notices the sweating among the "garret masters" in the boot and shoe trade at Norwich; and has this warning, "We must be careful, therefore, lest an evil grow up more fatal in its consequences to morals and health than the worst form of labour ever known in open factories and workshops." In 1873 Mr. Redgrave suggested the following amendments in the existing law:—

1. The repeal of the Workshop Act of 1867.
2. All handicrafts not defined to be factories in any Factory Act to be declared to be factories under the Factory Act of 1867.
3. Registers to be kept of such factories.



IV.—PROSPECTIVE EFFECTS OF NEWLY-  
PROPOSED CHANGES.

Such proposals as these foreshadowed the recent recommendations of Lord Dunraven and of the other Commissioners.

At the present time the whole question of State restriction of labour is thoroughly well to the front. Two lines of departure from the existing law are now being more or less freely discussed. In the first place it is proposed that the *scope* of legislation be once more extended ; secondly, there are those who advocate a radical change in the restrictions now in force. The former of these two suggested alterations is the nearer to actual realization, and its probable effects are the less difficult to forecast. For this reason :—the terms “factory,” “workshop,” and “domestic workshop,” in the Act of 1878, are now hardly more than survivals of the past, which serve to mark the historical progress of legislation. To-day there exists no really fundamental distinction between a “factory” and a “workshop,” or an ordinary

and a "domestic" workshop. The factory system is becoming the typical form of modern industry ; the older forms of manufacture and handicraft are fast passing away ; and of "domestic industry" in the old and only proper sense of the term very few traces indeed remain.

Experience has shown us factory legislation at work in the textile factory, the non-textile factory, and the workshop. The provisions drawn up with special reference to one set of trades soon proved admirably well adapted to the conditions of a great variety of others.

We have seen the original sphere of the factory Acts constantly enlarged to include, first, in 1864, certain special forms of non-textile industries ; then, again, in 1867, all workshops of a certain size ; and lastly, in 1871, every kind of manual labour exercised by way of hire or gain in textile factory, non-textile factory, or workshop (the term "workshop," however, being defined to mean only *a place to which the employer has the right of access*).

Each succeeding experiment has proved legislation to be justifiable not only on grounds sanitary, educational, and moral, but also when judged by the "strictest rules of Political Economy." All the English economists were against the Act of 1844; probably there is hardly a single writer of note who would wish to see that or any subsequent Act repealed to-day. The expected economic results nowhere came to pass, because, wherever legislation penetrated it acted as a stimulus to "invention" in the best and widest sense of the word.

A three-fold waste of labour was the condition which rendered possible a result quite other than that most generally anticipated. There was, firstly, a waste of labour due to the use of inferior machinery; secondly, a waste of labour due to bad systems, both of Production and Distributon, *e.g.*, the labour of little masters, contractors, middlemen, &c.; and thirdly, a waste of labour due to overwork on the part of the labourer. No one doubts that these conditions exist to-day in

the industries mis-called "domestic;" therefore it seems more than probable that the extension of the Act to such forms of labour would have substantially the same effects as those which have always followed its introduction into larger, but not essentially different, branches of trade. Production will increase with the improved vigour of the workpeople, and the use of better appliances; wages will rise; foreign trade can be only temporarily injured; the whole basis of the industry must in the end be made wider and stronger. Temporary suffering there must be, that is inseparable from a transition period. As in all other instances we have noticed, the factory Acts have fallen heavily on the smallest class of employers and the weakest class of workers, so, too, in the "sweated" trades of the present day it is impossible but that the profits of contractors and garret masters should be cut off by a law which must inevitably tend to abolish the pernicious system of which they are a part. And equally certain it is that along with the abolition of bad methods of

production will go the discharge of the least capable among the workpeople. The standard of labour will rise, and many a strong man now out of work will take the place of the poor, decrepit creatures, whose very infirmities alone have driven them down to the lowest level, where they earn smallest pay for hardest work. What is to become of these poor wretches depends much on the strength of the union between the various classes of labourers. The question of the "residuum" is a social question. No doubt legislation eventually brings about an increased demand for labour, by stimulating production; but those are unwise who look to finally solve the problem of the unemployed by an amended Workshop Act.

The workers in the "domestic" industries were, perhaps, the largest section of labourers ignored by the last really progressive workshop Act, that of 1871. But there was another important class altogether omitted. The Act, besides defining a "workshop" to mean only a place to which the employer had right of



access, was also "based entirely on the idea of handicraft" (see "Reports," 1871), the manufacture, that is, of material wealth. Thus it gave no protection to those classes of labour which are generally termed "services;" it left untouched the labour of shop-assistants, railway, and tramway officials, and, indeed, it ignored all the great army of workers employed rather in distribution than in direct production. A "Shop Assistants" Act has since been passed, but the other forms of labour remain unregulated, and the recent Board of Trade returns show, I believe, that the average hours worked are excessive. There is room for improvement here, and it is worth noticing that in such industries as these, the great fear of the present time, the danger of foreign competition, is altogether absent, or at least reduced to a minimum. The objection to the limitation of the hours of labour of adult men was long ago shown by Lord Macaulay to rest on an insecure basis. As a matter of fact State interference with the labour of grown men is no new thing. Direct limits were set

to miners' work in 1842 ; and men in factories have, to all intents and purposes, had their hours fixed ever since the first factory Act came into force. The practical argument that interference will impair the moral energy of the man, take away his self-helpfulness, and make him trust to the State to do everything for him—that argument has not been borne out by experience. No more self-helpful and independent set of workpeople are to be found than the cotton operatives of Lancashire, and they are the men whose hours of labour have been longest subject to State regulation. It is sometimes the bitterest irony to tell a man to help himself. It is the legislation which must in many cases give the first taste, not of dignity and self-respect but of freedom. This applies, of course, with additional force to the toilers in the smallest and worst regulated “workshops, employing men only.”

It was an objection often urged against the early factory Acts that the condition of the mill-hands was not one whit worse than that of scores of other labourers. Mr. Bright, for

instance, in the debate of 1850, compared the circumstances of the 15,000 young persons under the statute with those of the 15,000 milliners in London. But when once the first experiment has been made and has succeeded, it would seem that such an argument as this can only be used effectively not against a particular, but in favour of a general application of the law.

Much more difficult is it to speak with anything like confidence of that other class of proposals—The suggested radical alteration of the law as it affects all trades; the further raising of the age of half-timers to twelve as in Austria and Switzerland, and the further reduction of the working hours to eight.

If the history of factory legislation teaches any lesson at all, it is the extreme difficulty of prophesying the effects of that legislation even in the most general terms; while to attempt anything like quantitative precision in one's forecasts is clearly out of the

question unless one possesses a very large amount of special technical knowledge.

The same predictions are being made concerning the "Eight Hours Bill" as were uttered sixty years ago against the first great factory Act. Men who fully admit that the old arguments have proved fallacious, repeat them again to-day. The general position of the opponents of new legislation may be summed up thus:—They regard the factory Acts as an example of exceptional legislation, framed to meet exceptional conditions. The experiment has been made and has succeeded, the desired result has been obtained, and the whole thing is over. The old conditions have completely passed away, and there is neither any necessity for a repetition of the experiment nor any reasonable ground for believing that under circumstances so altered, similar consequences would ensue. This was Mr. Fawcett's attitude in 1874, and the same line of argument has been taken up in recent debates. But is it altogether true that the old conditions have entirely passed away? is

it absolutely certain that there is no wasted labour in any department of industry to-day? Any great increase in the present speed of machinery, at least at the textile factories, certainly seems impossible without an overstraining of the workman's strength; but surely in the less perfectly organized industries there is room for progress. There is always a too great readiness to regard a present system of things as stereotyped and final. If we consider the strides that have been made in invention during the last fifty years, it seems almost rash to attempt to fix a limit to the possible developments of modern industry in the years to come.

But the proposers of an Eight Hours Bill lay more stress on the argument that such a measure must bring about a great improvement in the vigour, bodily and mental, of great numbers of the working class.

Much has been done by past legislation but there are those who believe that much still remains to be done, who, like Dr.



Cunningham, fear that even with the protection given by the factory Acts, the factory population is deteriorating to-day.

“Some of the most important elements,” he says, “in the maintenance of the national life act indirectly upon it.” Chief among such we may rank the spread of education, the growth of culture, the general increase of intelligence among so large a section of the community.

The bodily and intellectual energy of the individual workman is, after all, the only true basis of any kind of national greatness.

If the question of a special application of the principle is always a difficult one, yet the principle itself seems clear. Long experience teaches this: that no law which promotes the physical, intellectual and moral good of the working classes can in the long run prove economically unsound.

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#### SHORT NOTES ON RECENT DEBATES.

RECENT debates have raised questions which have been but lightly touched upon or

omitted altogether in this essay. It seemed well, therefore, to add one or two paragraphs by way of [brief notes on a few of these points:—

As regards the most important question of all—that of raising the minimum half-time age—there were very few new economic arguments brought forward on either side. Mr. Buxton defended his amendment chiefly on sanitary and educational grounds; but, speaking also of the economic aspect of the case, he denied that the proposed clause would have the effect of reducing the aggregate amount of wages received, because, under existing conditions, children to a certain extent enter into competition with adults, and where children are employed there the general rate of wages is low.

Sir W. Houldsworth did much to combat that other equally time-honoured and still more formidable bugbear of foreign competition by reminding his hearers of what was being done by other nations in the matter of factory legislation. He showed that in France

a Bill had passed a committee of the Senate, and through the Chamber of Deputies, raising the age limit from ten to thirteen at one bound; while the same provision is already law in Germany, and Switzerland has needed no new Act to bring its labour statutes up to the standard prescribed by the Berlin Conference.

In the course of this debate (House of Commons, third reading) some attempt was made to prove that the training received by half-timers in a mill is the best possible preparation for their life's work.

Supporters of the amendment declined to accept this theory; they could not see their way to regard the picking up of cotton-waste and such like occupations in the light of a highly organized technical education. Anyhow, whatever force there may be in the argument, it would have been more to the point if it had been used by some of the advocates of the next amendment proposed—the raising of the age limit of full-timers.

The most interesting speech on this subject,

from an economical point of view, was Mr. Bryce's. He pointed out that experienced manufacturers were, he believed, of opinion that if the age limit were raised, there would be more inducement to bring into play better machinery and a better organization of work, and to lessen still further the margin of waste and loss. He had a hopeful word to say, too, on the vexed question of foreign competition, for he considered that much of the success of our continental rivals has been due to the better general and technical education received by their labouring classes. His words really contained the gist of all that needs to be said by way of economic justification of such measures.

The proposal to include laundries under the Act was met by the objection that legislation has so far applied only to places where the manufacture of goods for sale is carried on, and that if it is to be extended to laundries, why not to other forms of domestic industry? If laundresses are pro-

tected, why not cooks? But the weakness and incompleteness of this reply of Mr. Matthews' was immediately shown by the next speaker, who complained that it is not fair for dyeworks to be regulated and laundries which are in competition with them to escape free. The fact is that it is no longer possible to draw hard and fast lines between the various grades of industry, they shade off imperceptibly into one another, and all are conforming more or less nearly to the general outline of the factory system.

Another question of grave importance is that of the handing over of workshops to the care of Local Sanitary Authorities instead of leaving them under the management of the Government inspectors.

Without special knowledge of the practical administration of the Factory Acts, and of the particular exigencies of the present time, it is, of course, impossible to speak with anything like confidence on a point like this; but what we do know is that the result of leaving the Workshop Act of 1867 to the

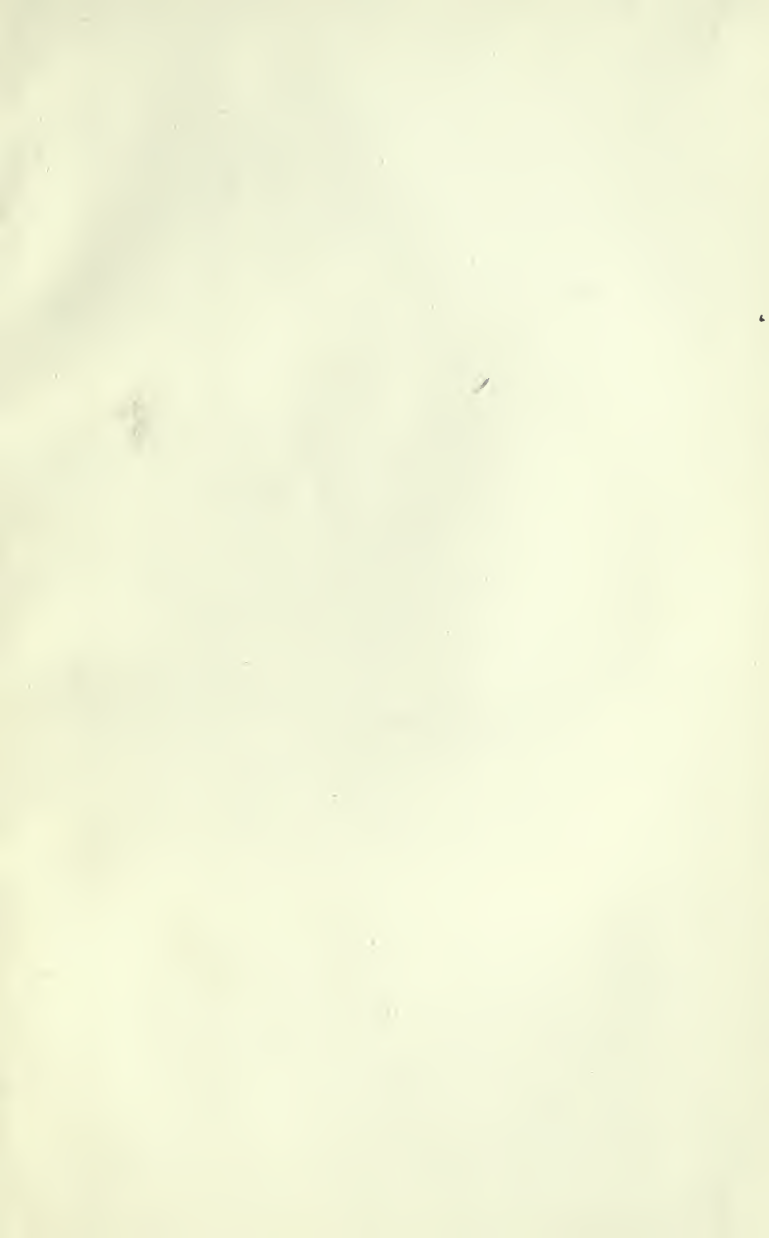


local authorities was simply that it became a dead letter.

The last point to be noticed is the clause to the effect that operatives engaged by the piece shall be supplied with certain technical particulars of the work they are given to do. The grand objection naturally is that such a measure would give dishonest workmen opportunities for betraying trade secrets.

Assuming that this danger could be effectually guarded against by the imposition of a considerable penalty in such cases, one would imagine that a regulation of this sort would do nothing but good.

The introduction of the piece-work system followed quickly on the early Factory Acts, and its results were excellent. It gave the operatives a direct interest in the amount of work done and brought about habits of regularity and industry. The adoption of any measure which should tend to perfect this system would surely be to the advantage of all parties concerned in production.







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