

OBSERVATIONS
ON THE
INFLUENCE OF MACHINERY
UPON THE
WORKING CLASSES OF THE COMMUNITY.

BY JOHN KENNEDY, ESQ.

"Read February 10th, 1826."

A FEW years ago, I had the pleasure of presenting to this society an outline of the origin and progress of the Cotton Trade, and an account of the various inventions of machinery then in use in this department of British manufactures. My object in the present paper is to state my opinion of the influence of machinery, and to lay before the society a few hints on the advantages consequent on the introduction of mechanical and scientific improvements into the various and widely-extended departments of our Manufactures.—In the first place, the object of all manufacturing machinery being the substitution of some power in the place of human labour, its immediate tendency is to diminish the necessity for manual exertion, or to render it less burdensome, and as a direct consequence of this to enable the younger and more delicate mem-

bers of the community to perform those operations, which only the skilful and robust were wont to execute. Hence it is that wind, water, and steam, have been applied as moving power in the place of human or horse labour, and that women and children are enabled to execute those tasks, which formerly required the ingenuity or the strength of men.

While, by this important change in our manufacturing system, the more laborious operations are made no longer to depend entirely on human exertion, the extension of mechanical improvements causes a new division of labour, which is advantageous in some important respects to the operative members of the community.

Not only is great skill required in the construction of those beautiful machines, which are intended to diminish human labour, but a demand is thus created for the exertion of industry and skill in the superintendence of the newly-invented machine. No mechanical contrivance is so perfect as not to require continued attention, nor is there any, the efficacy of which does not materially depend on the care and dexterity of the overlooker. This is particularly the case, when the movements of the machine are of a complicated or delicate nature. Such are the various engines

employed in the cotton and woollen, the silk and linen, manufactories ; these, while they abridge human labour in many respects, create a demand for it in other directions, and thus the older and more experienced members of families find abundant employment.

Much labour and ingenuity and expense being incurred in the invention and construction of machinery, the owner of a costly improvement naturally wishes to employ it as far as he can to his individual advantage. He is desirous of obtaining some adequate remuneration for the money he has expended or the talent he has excited, in order to possess himself of a machine calculated to supersede in some degree the operation of mere manual labour. But still the machine itself must be worked, and this cannot be done without human labour employed at least in its superintendence. Now the price, he will pay for the labour required, will be in proportion to the necessity he feels for it, arising from its productiveness and from the demand for the manufactured article thus furnished. And as the ingenuity and skill required in the superintendence of complex machinery are not of ordinary attainment, the wages of persons thus employed will bear a proportion to the value of their labour. Hence it will appear, that in all

cases the employed necessarily partake in every improvement that is made in machinery, and have their full share of interest in all new inventions.

The extended classification of labour is an advantage to the working classes themselves, and contributes in various ways to their comfort, convenience, and profit.

The farther this classification of human industry is carried, the more any individual branch of trade or manufacture becomes dependent on the subordinate branches of this subdivision of labour. All the departments being thus subservient to and dependent on each other; the very lowest (those I mean which require the least exertion of skill or industry,) have still their relative value; and whilst the highest degree of ingenuity and dexterity will be applied where it is most wanted, and will be sure of a proportionate remuneration, the inferior kinds of labour will furnish employment to a very large class of the community, whose services could not have been required, had not the invention of machinery rendered them available. Every new machine may, in fact, be considered as a source of individual advantage to the artizan, on whose skill or industry alone its productiveness must

ultimately depend, and, so far from decreasing the value of human labour, the discovery and application of mechanical contrivances to the various departments of our manufactures has, in reality, created a new and perpetually-increasing demand for it.

In proportion as machinery is improved in simplicity, and becomes more uniform in its action or motion, a lower class of labour is required for its management; and as women and children are thus enabled to produce those fabrics, which it formerly required all the ingenuity, skill, and labour of the very best workmen to furnish, the latter are set at liberty from the mere drudgery of manufacturing employment, and are at leisure to engage in those more difficult and delicate operations, which the perpetual multiplication of machinery renders necessary.

Such appears the direct tendency of the introduction of machinery; it places men in a condition very different from that state of things, in which the wealthy few could and did purchase the lives and liberties and rights of the many.

Instead of being thus absorbed, capital is more justly and properly applied, and is the means of extensive benefits not to a particular class of society, but to the whole community.

Surplus wealth can now be invested, and is so, not in purchasing the fee-simple of a human being, but in the fee-simple of a machine, which relieves man from the severest slavery of labour, and enables the delicate, the feeble, the young, and the infirm, to earn a comfortable livelihood by dexterity of hand, and the ingenious application of the higher faculties of the mind. Machinery brings into exercise and competition the intelligent powers of man; mere hand and slave labour engages only his animal force.

Wealth invested in machinery improves the condition of man, and enlarges his capacities and means of happiness; but in former days it had the effect of increasing slavery and of debasing the human character. Look even at the present condition of the West India islands, and all those foreign possessions, where machinery has not been introduced to supersede the necessity of human labour, or at least to lighten it. Wealth accumulated there is invested in an increased number of slaves who are stimulated to exertion by the goad, that they may furnish luxuries for their fellow-men. Accumulating wealth in England is employed in producing comforts, by the aid of machinery, of which all are partakers; in contributing to the advancement of the human mind; and in making man, what he was intended

to be, a moral agent. While the operative classes of the community are benefited by circumstances, which open to them continually new markets for their labour, and a higher rate of remuneration for it, the great mass of mankind also experience from the same cause important advantages.

The products of manufacturing industry are obtained at a lower price, and of superior quality; and those articles, which were once regarded as the peculiar accommodations of the higher classes of society, are now placed within the reach of all. There is not, perhaps, a more striking feature in the recent improvements that have taken place in this country, than the increased comforts enjoyed by the working classes, particularly as these are intimated by their better food and clothing, and the more convenient furniture of their humble dwellings. And these are so necessarily connected with an improved condition of health, that they may serve to account in a great degree for that lengthening of human life, which has been recently reported to us by the statist and political economist.

Among other advantages resulting to the labouring classes from the division of labour and the custom of piece-work, there is one which ought not to be overlooked, though it is, perhaps,

not unattended with some inconvenience on the whole. From the classification of human industry, there arises to the operatives a considerable facility in associating and combining, not merely to frustrate any attempts on the part of the employers to impose unreasonable terms of remuneration, but also to make terms and conditions with them. This has been recently productive of mischief to a considerable extent, and probably will continue to be felt as an evil till the just rights of masters and men are reciprocally understood and allowed.

The advantage to the employer from the use of machinery arises from the more extended means thus put into his possession of investing his capital and exercising his skill and ingenuity. His object will be steadily to pursue his system of business at the least possible expenditure, while the operative will, in like manner, endeavour to obtain the highest rate of remuneration for his labour and dexterity. Hence, there may times arise, when the contest between them may be carried on to some inconvenience to both parties; but if each be left to pursue his own course, without the interference of the public on the one hand, or combination laws on the other, the matters of dispute will speedily find their own level and every difference will be fairly adjusted.

That the labourers should refuse to work at their former wages is not unjust. Their labour is their capital, and they have a right to invest it in the most advantageous way possible. If, on the contrary, the employer wishes to reduce his labourers' wages, he is equally at liberty to attempt it. But it would be manifestly unjust in the master or employer to combine with other masters, and prevail on them to engage not to give employment to such workmen, because they refused to accept his reduced prices; and it would be equally unjust in the workmen to prevent others from accepting this lowered rate of wages, if inclined to work for it. It would be unjust in the master, to say to his workmen, you shall not bring up any of your family to any other trade than that in which you are yourself engaged; and it would be no less unjust in the workman to say, you shall employ none but such as have been brought up to such and such a trade, and who have served an apprenticeship, or any members of some club, or some association. It would be unjust in the master, to insist upon his labourers working longer hours than those ordinarily agreed upon, say from six A.M. to seven P.M., including the regular and sufficient time for refreshment. It would be unjust to say to the labourer, you shall work such hours as I think it proper to prescribe; and it would be

unjust in the labourer to say, you shall fix only on such hours as I choose to dictate. The price for labour will and must vary from a variety of circumstances, but this most frequently arises from a redundant or scanty supply of manufactured products; and the capitalist will naturally and reasonably calculate to receive at least the ordinary interest which such capital would yield, if employed in agriculture, or which he could obtain by lending the same to those who might wish to borrow. This will lead the capitalist to procure his raw material as low as he can; and labour and food constitute a part of his raw material.

Thus the merchant, the manufacturer, and the agriculturist, proceed to lessen their expenses by every means in their power, whilst the operative tries to enhance the price of his labour. Now this seems a principle to use as the basis of our common and statute law respecting combinations, and the important inquiry is, how to frame laws to meet exigencies of this kind so as not to infringe upon the liberty of the subject on either side.

The recent repeal of the modern combination laws, joined to the great demand for labour in every department of our manufactures, has pro-

duced a singular degree of excitement among the labouring classes, and a short time will, in all probability, suffice to enable us to know, what legislative measures (if any) may be necessary on this subject.

I shall therefore defer the further consideration of it for the present, and also an inquiry into the physical and moral effects which result from the peculiar organization of our large manufacturing establishments.



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