

# The Evolution of Industry

By W. McLAIN.

(Continued from last issue)

THESE greater developments, have not been confined to any one industry or even to any one country. Capitalism during the last quarter of a century or so has been rapidly changing its character. How great some of these changes have been may be seen by a glance at a modern industrial concern. In the shipbuilding industry, for example, it was at one time the custom for the shipbuilding contractor to build the hull, giving out the making of the engines, the furnishing of the saloons, &c., &c., to other concerns. Of recent years the whole ship, from keel to ariel, has been built, engined and equipped within the widespread embrace of a single company. Further than that, either by direct ownership or indirect shareholding in other undertakings, a shipbuilding firm may, and often does, control the raw materials it requires, the iron, coal, &c., from their very source. Similarly a soap manufacturer in a large way not only makes the soap and sells it, but also owns his own fleet of steamers to bring his own raw materials from his own plantations in countries thousands of miles away. The grocer's shop that does not disdain to supply an article selling for a few coppers has its branch linked up with thousands of other similar branches all in turn connected with the actual process of production.

We have already said that with industry in a simple state it was possible for a worker to own the means whereby he gained his own livelihood, and that this gave to him a greater sense of security than the worker of the 20th century—under capitalism—can possibly know. Capitalism has become so wide in its ramifications, so complex in its character and its various departments are so inter-related and interdependent that the individual, as an economic unit counts for nothing. Production is carried on by large masses of people, all co-operating in the work of producing the finished article. Those middle-class people who have endeavoured to maintain their independence and have stood midway between the employing class into which they could not ascend and the working class into which they were afraid to descend, have lost their distinctive character as a class. The line of cleavage between the owners of the tools and the workers who use but do not own them becomes ever more distinct.

From out of simple family industrial life arose the early craftsmen and the first merchants, who built up the towns. From the handicraft system of industry within the towns grew the first industrial capitalists—the Craft Guildsmen, and also the small enterprising men who found the town too narrow for their endeavours, and who built up the nation as an industrial whole. From these struggling industrial adventurers grew up the capitalists of more modern times, the financiers of industry. Each class represented a set of vested interests. Each class pushed its way forward as it was pressed along by the conditions surrounding it, and each in turn, when it had secured its own emancipation, fought with every weapon at its command to maintain the existing order, to keep things as they were, and to keep back the new classes that economic development brought into being. Modern capitalism has produced its new class—the proletariat—the wage-earning class, which, like every preceding class, has had to struggle, and still struggles, against the conserving elements in society.

The first years of the 20th Century found capitalism reaching out in every direction towards its fullest growth, yet standing hesitant, as if afraid to put forward its whole strength, hesitant because it feared the growing strength, of the workers, and because capital is a timid thing, and prefers to advance over ground that has been well prepared. How the European War has prepared the ground for the greater advance of capitalism is the subject of the second half of our story.

To the student of Industrial Evolution, the period of the European War has been of particular interest. Developments that it is fair to assume would have ordinarily been spread over a number of years have become accomplished facts in a few months, and capitalist development has been accelerated with very great rapidity. The effects of the changes that have taken place, though they must be regarded as being but a continuation of previous changes, will be very important to the working-class and to its attitude towards the class-struggle, the struggle which has its storm centre in every workshop and factory, and the circling waves of which affect every department of social life.

The main features of the industrial changes that the war has hastened onwards with dramatic suddenness may be summarised as follows:—

1. Increased specialisation in industry, leading to the introduction of new groups of workers into spheres previously closed to them.
2. Increase in the power of capital economically, due to the increase in the size of the various undertakings and to the floating of War Loans.
3. Increase in the power of the capitalist state, as the body functioning in the interests of high finance.
4. Rapid decline of the middle class and the passing of the capitalist from participation in industry.
5. Intensification of the class-struggle.

## Increased Specialisation and Greater Output.

The great demand for the output of war materials has pushed specialisation forward in certain industries to such an extent that the Industrial Revolution of the 20th century has been accomplished. Just as in the 18th century the textile artisans found themselves faced with a new set of industrial conditions, so today the workers in general, and in the engineering industry in particular, are confronted by a condition of things for which they are unprepared. Just as the first machines displaced the handcraftsmen and made it possible for a new class of machine minders, irrespective of age or sex to do their work and to do it more efficiently and with less labour per unit of work turned out, so today newcomers into industry are able to take in hand tasks they were previously adjudged unable to perform, and are able to produce greater quantities of commodities because the work has been so much more scientifically sub-divided.

Before the war, the all-round mechanic capable of working at all the branches of his trade was an industrial rarity, and was only to be found in the few surviving small general shops. In the large concerns, the fitter was a fitter only—indeed, he was often only an assembler of machine-finished parts; the turner was a turner on one of the branches of that department of engineering—either a centre lathe turner, a turret lathe operator, or an automatic lathe attendant or setter, and so on throughout the whole range of processes. In the woodworking industry the machines had produced grades of workers corresponding to those outlined above, and the same can be said of well-nigh every industry. The net result of all this development was that whereas without specialisation the workers only supplied their own wants, plus a certain amount which went to their overlord, and only supported a relatively small number of non-producers and parasites, in the years preceding 1914 enormous armies and navies, great diplomatic services, and an innumerable horde of dividend-drawing, useless members of society were kept by means of the increased productivity of labour.

But industry prior to 1914 was not specialised to anything like the extent that was possible, and for this there were at least two reasons. The employing class hesitated to risk laying out their capital in

new machinery and plant because a market for the goods that would be produced was not always certain. In addition, the industrial artisans, like the craft guildsmen of the mediæval towns, had built up a network of industrial regulations, the aim of which was to limit the number of persons employed in the occupations to which they were attached. In this they were justified. Experience had taught them, and still teaches them, that, given the fullest possible entry into an industry of any number of workers without effective industrial organisation on the part of those within and those entering the industry, the supply of labour tends to become greater than the demand. Men outside the gates clamour for the positions of those within, who might refuse to work under certain conditions, and the price of the only commodity the worker has to sell, his labour power is decreased. These regulations, however, such as they were, were already being slowly swept away by the inexorable laws of economic development, and the war has but hastened their departure. As they go, the essential oneness of the working class is more clearly seen, but the realisation of that oneness must keep pace with the other conditions of the last stage will be worse than the first.

When the capacity of the industrial world was found to be inadequate to the demands made upon it, the employing class were forced to embark upon the task of a hurried reorganisation of their establishments. What they had been afraid to do in normal times, the pressure of war conditions and the certainty of high profits gave them courage to attempt. But it was not all risk, for the excess profits clauses of the Munitions Act of 1915 provided that when the amounts of excess profits due to the national exchequer were computed, allowance was to be made for expenditure on new plant. By this provision money that should have been paid over to the State has been used for the purpose of building new factories, purchasing new machinery, and setting old established concerns, working with antiquated plant, upon a new and up-to-date basis—all, be it noted, without cost to the employing class, yet the new means of production will remain the property of that class! The excess profits levy was the chief bait that induced the workers voluntarily to agree to the scrapping of their Trade Union constitutions and caused them to postpone many a demand for improved industrial conditions that would otherwise have been put forward.

What effect has the introduction into industry of many new classes of workers had upon the industrial situation? A great deal of the new machinery set up is of a specialised character, adaptable only to one process. As a consequence, women workers with no experience have had little or no difficulty in "making good" in the workshop, in the sense that their output has exceeded all anticipation. Whereas a skilled worker could perform, say, five operations in connection with the production of a particular commodity, all on the one machine, now five different "one operation" workers can each contribute their quota of energy, and the net result is that the work of a machine "tradesman" is completely performed by unskilled workers. The output is greatly increased because each worker becomes an expert at his or her own task, and because no time is lost in converting the machine and re-setting for new processes. Thus the old line of demarcation between groups of workers breaks down as industrial development proceeds. The physical line of demarcation also tends to disappear with the introduction of elaborate lifting appliances in engineering shops, enabling women to undertake "heavy" work that they were hitherto physically debarred from performing.

The workers, accepting the postulate that their country was in danger, and that only by an enormous increase in the output of certain commodities,

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