

Materialist Conception of History

FOR BEGINNERS

THE INDUSTRIAL REVOLUTION

Lesson 15.

IN a previous lesson it was pointed out how manufacturing towns with their division of labor had grown up in country places outside of the Guild restrictions, and a new system of economy began to make its way. The older methods of production still continued alongside of the new, but gradually the new system asserted its superiority. The introduction of machinery in industry became possible only when manufacture had instituted the division of labor, dividing up the old handicrafts into simple detail operations. Not until the laborer performed one simple task could he be displaced by the machine. A machine could not take the raw material and produce the finished commodity as the handicraft worker could, but when the work was divided up in sections, as it is in the boot industry, machines could be made to perform the separated, simplified operations. Machinery at first was driven by animal power, windpower, and man power. The domestic system had simple machines operated by the producers in their cottages. Later when the machine grew bigger and man's power insufficient to operate the machine, animal power was introduced. Arkwright's first power loom was worked by a bull. The first factory towns grew up near streams, utilizing the water to drive the machinery by water-wheels. Arkwright's factory was water driven.

The extension of the world's markets and the ever-increasing size of the machines made it necessary to find a more reliable, regular and controlled power. The invention of the steam engine or its improvement by Watt in 1769, and the blow furnace for smelting iron and the discovery that pit coal could be used to smelt iron, led to the building of ironworks beside coalpits. The introduction of the fly shuttle enabling weavers to double their output of cloth led to the invention of the spinning-jenny, and spinning frame to keep them in supply with the yarn used in weaving. Therefore machinery applied in one branch of industry became imperative in other branches in order for them to keep step. Crompton in 1779 combined the advantages of Hargreaves' spinning jenny and Arkwright's spinning frame, by his invention of the spinning mule. The weavers then were unable to keep step with the increased production of yarn until Cartwright introduced the power loom, which brought weaving up to spinning again.

The cotton industry still suffered for lack of raw material until Whitney invented the gin for cleaning cotton. Previous to this machine, 5 or 6 pounds of cotton per man were cleaned per day; after its introduction one man cleaned 1,000 pounds per day. De Gibbin says: "In little more than 20 years all the great inventions of Watt, Arkwright and Boulton had been completed, steam had been applied to the new looms and the modern factory system had fairly begun. Nothing has done more to make England what she is at present, than this sudden and silent Industrial Revolution, for it increased her wealth tenfold and gave her half a century's start in front of the nations of Europe." The cutting of the Manchester Canal increased the facilities of transportation of this increased machine production.

Bell's printing cylinder (1783) used to print calico goods with the aid of one boy and one man, performed the work formerly done by 200 blockprinters. Coalmines were improved because the steam engine enabled man to dig deeper shafts, and the difficulties of mines which flooded were overcome with steam pumping-engines. The industrial towns with large populations became linked up near coal-mining centres. The textile industries, being in the forefront of development, were the first to be revolutionized. The discovery in the new process of procuring coal and making iron helped the textile industry by supplying any amount of fuel and machinery. In 1740 the production of iron annually was 17,000 tons, which increased to 68,000 in 1788. De Gibbin points out that this increased wealth en-

abled England to come out of the European struggle with France in the Napoleon wars, as the foremost nation in Europe. The consequence of this Industrial Revolution was an increased population and a large proportion of the people living in poverty and distress. The workers had now become a proletariat. Labor was impoverished—1st, by the base money at an earlier period; 2nd, robbed of his guild capital; 3rd, evicted of the land because sheep farming was more profitable to the landowner; 4th, the enclosure of the common lands. The labor, having nothing left but his power to labor, became a wage slave.

Although the Industrial Revolution made a great demand for labor, the workers were not much benefited by it. Compared with the old methods of production the new machinery was easy to operate and required no high degree of skill or training in craftsmanship. Women and children were brought into the factories, regardless of age or health conditions. They were employed in old barns, sheds and other places that had been transformed into hives of industry. The story of the enslavement of boys and girls, mere infants, the buying and selling of pauper infants, their violent deaths and secret burials, are the basis upon which is built up England's commercial supremacy of the last century. Children of 9 and 10 years were dragged out of bed at two, three and four o'clock in the morning and compelled to work for a bare subsistence until 10 11 or 12 midnight. In the potteries, children of eight years work from 6 a.m. to 9 p.m. and sometimes all night, with no increase of pay. Read "Capital," vol. 1, page 268, on where Marx takes his illustrations from magistrates, government commissions, etc.

The handicraftsmen could not compete with the tireless machine and its abundant supply of cheap labor. They were obliged to seek employment in the factories and take advantage of the poor law, which had become a subsidiary medium to encourage low wages. The worker could not own the machine, engines or factories that the new manufacturing system required. These could only be possessed by the merchants who had large amounts of capital at their disposal, obtained by exploiting labor at home or by selling slaves to planters of the new world, and the various other methods of plunder we previously noted during Elizabeth's reign. Free competition and non-intervention of the State was the new doctrine. Each profit seeker was a law unto himself, and would brook no interference with his right to do what he liked with his own. Production increased with leaps and bounds, and great fortunes were made out of a helpless working class who were ground between the factory wheels. The death rate increased enormously, disease was rife in industrial centres; men, women and children were struck down and deformed. Thousands of families left the country-side to go to the towns, making the conditions still more acute for those already there. Factories and warehouses sprung up in a night, old buildings were transformed into factories and filled with machinery, side by side grew up the slum districts as a fitting monument to the coming of the capitalist class.

With the increased population, and the shutting out of foreign wheat with a heavy tariff, corn rose from 30s. a quarter to 45s. The farmers became prosperous, then the landed class increased their rents. They also increased their property by more enclosure acts. Rogers points out that the agricultural laborer with his land allowances was able to eke out an existence, but the enclosure acts of the eighteenth century, and the influence of the Corn Laws, made it necessary for him to supplement his wages by an allowance from the parish fund. With the loss of the commons and the increased price of food the worker was worse off than the worker a hundred years previous.

We have reached the stage of the proletariat,

therefore let us see the difference that existed to distinguish the slave, serf and wage slave.

The slave of antiquity, like the slaves of backward countries of recent times, e.g., in the southern States of America, did not sell himself by the day and hour like the wageslave today. He was sold generally for a life period. The master, in his own interests, had to maintain his property just as he would a horse today. The worker today has not the assurance of existence like the slave. He becomes the property, not of an individual but of the capitalist class, to whom he sells himself by the hour, day or week. No buyer, no wages. Therefore his existence is not as secure as the chattel slave. There must always be workers under capitalism, but the competition for a job brings starvation to individual workers. The slaves did not compete with one another. When he was sick he was attended; when work was slack he was fed, clothed and sheltered, because he was property that would deteriorate. The modern worker is thrown on the scrap heap as the worker is so cheap, while slaves cost up to 1,000 dollars in the Southern States. The slave was not regarded as a member of society but a working animal. The modern worker is recognized as a member of society and to this extent is on a higher social plane than the slave. In order to set the slave free it required the abolition of a single private property relation—private property in slaves. The freedom of the wage-slave involves the abolition of the private property of the machinery of production.

When agriculture was the main occupation and land the principle means of production, the workers were feudal serfs. When landownership controlled the means of life slavery was unnecessary, because whoever owns the means of life owns those depending on such means. The serf could not be sold, neither could he sell himself. He was tied to the feudal state in which he was born. He also, like the chattel slave, had a guaranteed existence. He had the use of a piece of land for maintaining his own family, and worked part of his time for the lord. Unlike the worker, the serf stood outside of the competition with his fellow serf. The modern worker, divorced from the soil and all other means of production is a free laborer; he is free to sell, but he must sell (because he is free from having anything else to sell other than his labor power) in order to live. Under the guild system during the early development of industry, the craftsman protected himself from outside competition and regulated trade by his guilds. To participate in these guild industries an individual had to be a member, which involved an apprenticeship period. His apprenticeship finished, he became a journeyman and was only a temporary wage-worker, sooner or later becoming a master. The relation between master and worker was a close personal one. They worked together and lived together in the same house, sometimes he married his master's daughter. His tools were small and were his own. He belonged to the same social class.

The modern worker and the capitalist relation is a money relation, and they belong to two different social classes. The gigantic tools are not easy to acquire, like the petty tools of the handicraft period. The worker today cannot pack his tools in a bag and take them home with him. It is easier to own a hammer than a steam hammer. The handicraftsman made the finished article, he was a composite laborer. The division of labor has made the worker a detail laborer. The master and worker in the guild, combined against competition. The modern worker may be crushed with competition without any injury to his master; the master may benefit by this competition. The worker having to depend on himself for a livelihood, hunting for a job, has a higher standard of manhood than the slave or serf whose existence was secure through their property relationship and the absence of competition to ob-

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