## Development of Educational System

APITALISM has attained its supremacy today over all other forms of production through its development of machinery. That achievement, and the education of the workers, are the two great historical functions of capitalism.

With the discovery of steam and its application to machinery, providing a motive power far superior to any previously existing, a new era in industry was begun. Increase in production over and above what was required to supply the producers with the necessities of life resulted in surplus products of great

Under the handicraft methods, which had prevailed throughout the civilized world, the surplus was not so greatly in excess of requirements of the workers, and industry was carried on largely in the homes of the workers themselves with simple hand tools and looms run by hand and foot power (wind, water and horse power being used to some extent in agricultural districts, chiefly), or the worker became an itinerant jobber carrying with him the tools of his craft and setting up his workshop wherever accasion required. Sometimes, if he furnished the material and sold the finished product, he became a master craftsman and built up a business, employing apprentices and journeymen. In that case he became a permanent fixture, and around his and like operations grew up the village or burg; otherwise he remained a wandering worker applying his skill to the material furnished by his employer, ocessionally rising to the position of contractor or entrepreneur. The technical processes of his trade in either case and the disposition of his products required but little learning. Keeping acounts was a very simple matter. Trade took the form of barter easily managed through fairs, when the producers in the various industries met and exchanged their wares, or later through pack peddlers (those prototpyes of the modern merchant) who bought and marketed the goods at a greater distance.

With the discovery of steam and consequent development of machines, the methods both of production and distribution underwent a radical change. The greater size of the tools of production necessitated permanent acommodations. The worker was unable to own the more expensive tools, and it remained for those master craftsmen who had succeeded in establishing themselves to carry on the new manufacturing methods which set in.

Competition for markets began with the greatly increased productivnes of the workers applying their labor-power to the machines. Surplus products piled up in the hands of the owners of those machines. The possession of the latest machinery giving temporary advantage to the owner of that particular machine by making it possible for him to produce more and cheaper commodities, thus enabling him to undersell his competitor.

But with the machinery came the need of workers who could read and write, measure and calculate, and the distribution of surplus commodities, trade relations with foreign countries and the establishing of the credit system increased the need of an educated proletariat if the capitalists were to compete successfully in the world markets. So we see the capitalist extending his technical learning to the workers and even opening the doors of the colleges to the more fortunate of the working class, doors which had previously been closed to any but the ruling class. The competition among the workers for the better paying positions facilitated the educational process, until modern popular education has resulted. The latest example of this is Japan.

However, with the technical education which the workers have appropriated to their own use has come the knowledge of sarplus value and the materialistic conception of history, thus establishing an entirely new school of thought which is spreading so rapidly that the capitalists have become alarmed. as is evidenced by their efforts to circumscribe proletarian education. The laws recently enacted by the New York State Legislature called the "Lusk Anti-Sedition Law." state: "Every person, corporation or society conducting a school or course of instruction in any subject in the state must be licensed by the State Department of Education to continue its work." All of which is a case in point. The capitalists want only such education for the workers as will redound to their own particular benefit. See Manifesto of Carnegie Institute. But it is too late. They have already placed in the hands of the workers the intellectual weapons which, if wielded with sufficient skill, will prove a boomerang to their own most cherished institution-wage labor.

KATHERINE SMITH.

(Note: Credit is extended to Comrade John Keracher for the general outline of the above.-K.S.).

If we turn to the production of useful articles, we find that the worker with the best modern machinery can make two hundred pairs of boots in the time it took the old cobbler to make one pair. The best modern weaving machine can weave two hundred times as much cloth as the old handloom. What is more, the new machines go on weaving while the workers are away at dinner, and should a thread break, the machine stops of its own accord. For the manufacturing of matches, a machine exists that turns out 144,000 boxes of matches per day. At one end it takes in solid blocks of pinewood, at the other it runs the finished matches into boxes, closes the boxes, puts them in packages of a dozen, and seals them up! Again, all these wonderful labor-saving machines are the products, the handiwork of Capitalism.

Capitalism has completely altered the position. Capitalism's great gift to man has been to increase productivity enormously. Capitalism has put into our hands tools and machines so gigantic and so productive that they make the greatest tools of the past seem mere playthings. In doing so, it has completely wiped out the iron reason that condemned the masses to poverty in times gone by. It has made communism and culture possible together. In the past comunism meant poverty for all; thanks to Capitalism, communism today would mean wealth for all.

"Ah," you say, "but have you not just shown that we haven't got wealth for all?" True! Capitalism has solved the problem of production, but it has left another problem unsolved. That problem can only be solved by an educated working class. Next month we shall se what that problem is.

J. P. MILLER.

"The Plebs."

## QUESTIONS AND ANSWERS.

The question has been asked: Can ore deposits, soil, climate, etc., be termed means of production?

Answer: No! In the science of economics they are technically classed as natural resources. The means of production are the material equipment used for carrying on the productive process. This equipment comprises such things as buildings, machinery, implements, tools, utensils and appliances of any kind, for dyeing, brewing, and chemical processes, railroads and rolling stock, ships and other means of transportation!

Raw materials, are such as ore in the billit, coal, oil, wool, cotton, logs, seeds, hides, etc. Also, the finished goods of one industrial process may become the raw material of another, as hides, the finished product of the cattle industry are in turn the raw material for leather, and leather for the boot and shoe industry; lumber for the building and furniture trades; agricultural products for stock raising, etc. These are termed production goods, to distinguish them from what is termed consumption goods, which last are sold to the ultimate consumer. C. S.

## Ten Minutes' Talks With New Students

Production and Poverty.

T the present time somewhere about one worker in three is unemployed or is working such short time as to be for all practical purposes in the same position. In addition, millions of those who are on full time have had their wages so seriously reduced that their position is not very noticeably better than that of the unemployed. Never before has there been such mass poverty. Try as we may to disguise the fact, Britain is simply a gigantic workhouse, a land of beggars.

What is the explanation? We're told that economic conditions necessitate large numbers of unemployed, and sweeping reductions in the wages of the rest of the workers; that, regrettable as it may be, it is impossible for industry to provide the means of life for large sections of the population. Wages, education grants, unemployment doles, all are cut down, because the country, so it is asserted, cannot produce the necessary wealth.

But can we agree that poverty is inevitable—is in the nature of things? It is undeniable that there was a time when poverty not only existed but was bound to exist. In primitive times, though all men were equal, they were all equally poor, equally uncultured, and it is easy to understand why. All men were poor because man's tools were so crude, so primitive that they sufficed to produce only the barest living. In the systems of society that followed

primitive comunism—chattel slavery, with its slaves and slaveowners, and feudalism with its serfs and lords—we find that although the slave-owners and the lords were wealthy, the great masses—the slaves and the serfs—were exceedingly poor and uncultured. In those days it was possible for only a few men to have wealth and culture, because although tools had improved somewhat they were still crude. The masses, as in primitive communism, were condemned by the as yet unsolved problem of production to lifelong poverty. Does the same reason for poverty exist today?

Before Capitalism, all works had to be done by power derived mainly from the muscles of men, assisted by the muscles of horses and oxen, and by the power taken from the rivers by means of the oldfashioned water-wheel. Today we use mechancial power. According to one authority, the factories of Britain derive from coal alone the power of 175,000,-000 men, and if we add to that the power got from coal used in ships and on railways, the 20,000,000 or more adult men and women of Britain have at their disposal the power of '265,000,000 men. Today a erane can lift ten tons as easily as a boy can lift a box of matches; and again, thanks to mechanical power, a modern steam-hammer can pound a ton of iron into a pancake as easily as a man can crush a walnut with a stone. All this mechanical power is the product of Capitalism.

## THE TARIFF ISSUE

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receiving in return merely the sustenance of labor reproduction. That is the simple cause of all—or most—of our trouble, and of all our poverty and degradation. No amelioration scheme can alter it, no tariff—or master class legislation—can turn its effects aside, and no reform whatsoever reprieve its economic incidence. World wide, the working class is in precisely similar conditions—free trade, or protection, Liberal government or Tory. Because, government of any kind is the subjugation of the working class to the exploitation of the ruling class, and can in nowise be altered by any ruling class initiative. Unless we can absorb and master that, we can absorb and master nothing. R.