

in his first paper, he gives more statistics in his last; challenged upon the accuracy of his figures, and utterly unable to verify them, he boldly and blandly writes:

"The, in most cases, insuperable difficulty of initial verification the difficulty of finding out the precise data on which they are based, the facts they suppress and the facts they express, render them practically valueless. Statistics have a fraudulent appearance of an accuracy which they can only possess in a very few special cases. Hence the superstitious belief in figures on the part of the modern mind. For my own part, no number of statistics would have ever made me a Socialist, and no number of them would unmake me one."

It, of course, simplifies discussions on Socialism, when the Socialist states facts and figures, but refuses to verify them, and *per contra* denies the right of his antagonist to go into details in any of these matters.

In his first paper Mr. Bax said:

"The small capitalist is continually being thrown upon the labour-market by inability to hold his own in the competitive arena. Capital tends thus to become concentrated in fewer and fewer hands."

In paragraph 18 of my first paper I challenged this, and at last Mr. Bax gives a statement which he considers proof: (1) There are fewer bakers who bake as well as sell; (2) that in glass-bottle manufacturing a few large manufacturers swallow up the small ones; (3) that Nettlefold's have nearly crushed out all other screw-makers; (4) that the carrying trade passes into the hands of large companies; (5) that a friend of Mr. Bax says that the facts (admittedly not reduced to tabular form by anyone) leave no doubt as to the truth of Mr. Bax's assertion; (6) that limited companies are on the increase.

1. If Mr. Bax's statement as to bakers were true, it would not show that there were not as many or more vending bakers with small capital, or that the sale of bread-foods by others than the actual bakers had on balance thrown small capitalists back on the labour-market. It might show that there had been economy in the manufacture of some bread-foods. Mr. Bax gives no figures, and perhaps limits his remarks to London. The Census for 1881 (General Report, p. 42) alleges an increase in the purveyors of bread and vegetables of 12.5 per cent. since 1871. These include the fancy bakers and pastry-cooks.

2. Mr. Bax gives nothing beyond his mere statement, and therefore furnishes no means of testing it. The Census for 1881 (General Report, p. 41) says that glass manufacture has increased 10 per cent. since 1871. It is, however, a small manufacture, only employing 19,338 men and 1,692 women.

"Of the 21,630 persons engaged in it, 5,984 were enumerated in Lancashire, 3,591 in the West Riding, 2,884 in Durham, 2,769 in London, 2,089 in Worcestershire, 1,752 in Warwickshire, 1,151 in Staffordshire, and only 1,410 in all the other counties."

3. I am unable to test this statement, of which Mr. Bax offers no evidence, and which, if true as to one small industry, would have very little weight. The Census (General Report, p. 49) says that in 1881: "The makers of bolts, nuts, rivets, screws, and staples numbered 8017, and had also increased very greatly, the uncorrected total in 1871 having been 5726."

So far as it goes, this is directly the opposite of Mr. Bax's assertion.

4. The Census 1881 shows an enormous increase of persons engaged in the carrying trade, and as a railway or steamship company is made up of very many shareholders of unequal holdings, Mr. Bax's present statement in nowise helps as evidence of his original assertion that "small capitalists are being thrown on the labour market."

5. I do not know anything of the investigations of Mr. Alexander Donald. I do know that a gentleman of that name did attend some lectures delivered by me, and advanced as if facts some most extraordinary statements, which clashed with all accessible statistics. Whether or not this is the same gentleman, his statement is vague, and his animus against the bourgeoisie (a class to which he and Mr. Bax belong) weaken the value of his too general corroboration.

6. The increase of *bona fide* limited liability companies for manufacturing purposes is direct evidence against Mr. Bax. It proves the existence of a large number of persons with small capital clubbed together for enterprise too large to be usefully undertaken except by such association.

To roughly sum up the argument. The definition of a Socialistic state now advanced by Mr. Bax in his three letters, is that state in which the working classes organised to that end [the manner and method of the organisation, and the character, duties, and responsibilities of the organisers being unstated] shall take over [that is seize and appropriate, and probably by force] the means of production, distribution, and exchange [nothing being said as to what is to happen to the present possessors in case they should not agree to or should resist this transfer]. There is then to be "collective ownership of these means of production by society as a whole" [all details as to the manner of the exercise of this ownership being positively refused], and all working is to be "not for profit of individuals or classes, but for the use of society as a whole, both collectively and individually" all the matters specified are to be common property, but there is still to be private property in some wealth, not specified. There is to be "the equal participation by all in the necessities, comforts, and enjoyments of life," the production of wealth is to be regulated, and industrial armies are to be controlled. But, according to Mr. Bax, the foregoing does not mean, and no modern Socialist would admit that it means, that organised society should own all wealth, direct all labour, and compel the equal distribution of all produce. Mr. Bax must pardon me if I can only construe words in their ordinary everyday meaning, and to express my regret that he should have been party to signing Socialistic manifestoes, which, as read in their natural sense, mean one

thing without adding a caution that the Socialist declaration were intended in a non-natural sense.

Mr. Bax has no scheme either for the taking possession or for the common owning, or for the equal participation, and he frankly says that he neither knows nor cares what will be the detailed results. Yet he contends that this Socialism will benefit the English people.

There are very many points of interrogation, and of traverse, in my first and second letters, which Mr. Bax has passed in silence. These are so numerous that I content myself with recalling the fact which I leave to the judgment of the readers.

C. BRADLAUGH.

(For previous papers see *Commonweal* for May 21; May 28; June 11; June 25; July 16.)

SOCIALISM FROM THE ROOT UP.

CHAPTER XX.

MARX'S DEDUCTION OF THE HISTORICAL EVOLUTION OF MODERN INDUSTRY.

CAPITALISM cannot be said even to begin before a number of individual owners of money employ simultaneously a number of workmen on the same terms, that is to say before the development of a concert of action towards profit among the employers, and a concert of action towards production for the profit of the employers among the employed.

"A greater number of labourers working together at the same time in one place (or if you will, in the same field of labour) in order to produce the same sort of commodity under the mastership of one capitalist, constitutes, both historically and logically the starting-point of capitalist production."

It differs from the mediæval system, that of the guilds and their craftsmen only by the greater number of the workmen employed; but this change to a new form of organisation made at once considerable difference in the rate and manner of production; there was less comparative expense of the means of production, *i.e.*, buildings, tools, warehouses, etc.¹ A consequence of this concentration of workmen under one roof was the development of the function of direction in the master as independent of his qualities as a craftsman, and the forcing on the system of this function as a necessary part of production. The master of the guild craftsman period held his place because he was a better workman and more experienced than his fellows; he did not differ from them in kind but in degree only; if he fell sick, for instance, his place would be taken by the next best workman without any disturbance in the organisation of the workshop; but the master of even the earliest period of capitalism was from the beginning unimportant as a workman (even when he worked, as he often did at first) but all-important as a director of work.

"Simple co-operation," says Marx, "is always the prevailing form, in those branches of production in which capital acts on a large scale, and division of labour and machinery play but a subordinate part." This sentence leads to the next development of capitalism, that of the division of labour, which brings us into the system of manufacture, as the word is generally understood; though it has a final development, that of machinery and the factory. This period of the division of labour, more or less pure, extends from the middle of the 16th to the end of the 18th centuries, when it was brought to perfection; but it must be understood that these systems overlapped one another considerably.

The division-of-labour or manufacturing system starts under two conditions.

The first is where the employer collects into one workshop workmen of various crafts, the results of whose labours are finally combined into one article, as *e.g.*, a carriage-maker in which wheel-wright, coach-builder, upholsterer, painter, etc., work each at his own occupation, and their products are combined into the one article, a finished carriage.

The other is the system in which the employer collects his workmen under one roof, and employs the whole of them as one machine in the simultaneous production of one article which has to go through various processes, these processes being apportioned to various parts of the workman-machine. This system affords a distinct example of evolution by means of survival of the fittest; sudden increase of production seems to have been called for, and the work accordingly had to be reorganised by being apportioned to different workmen in order to save time. Thus this system is the reverse of that illustrated by the carriage-making, in which a number of crafts had to be combined into the manufacture of one article; whereas in this (pin or needle-making may be taken as an illustration) a number of processes which once formed portions of one craft, now become each of them a separate craft in itself.

From this follows the complete interdependence of each human being forming a part of the workman machine, no one of whom can produce anything by himself. The unit of labour is now no longer an individual, but a group.

But all these processes, however sub-divided, and however combined,

¹ The master worker of the guild-system was not really a master at all even after he began to employ journeymen, because their number was limited very closely, and they were all sure to become masters in their turn: the real "employer of labour" was the guild and the "master" of that period was simply a foreman of the guild; the great change consisted in the breaking down of the position of the guild as employer, and the turning of its foreman into a real master or capitalist.

were still acts of handicraft; the same necessities which forced the simple co-operation of the first capitalistic period into division of labour, now forced the latter system to yet further development; though, indeed, other causes besides merely economic ones were at work, such as the growing aggregation of people into towns and the consequent increasing division of labour in Society itself as to the occupations of its members. This final development was the substitution of the machine and the complete factory-system for the division of labour and workshop-system. Under the new system the group of workmen, every member of which by the performance of a special piece of handicraft turns out some special part of the article made, gives place to a machine which produces the results of all these manœuvres combined together; or to an association of machines acting in a group, as the workmen acted. The workman is no longer the principal factor in the work, the tools which he handled are now worked by a mechanism connected by another mechanism with the power, whatever it may be, which puts the whole in motion. This is the true machine of modern times, as contrasted with the mere tool-machine of the earlier period, which was an aid to the workman and not a substitute for him. Furthermore, the workshop gives place to the factory which is not a mere assemblage of machines under one roof, but rather a great machine itself, of which the machines are parts; as Marx says: "An organised system of machines to which motion is communicated by the transmitting mechanism from a central automaton is the most developed form of production by machinery. Here we have in place of the isolated machine a mechanical monster whose body fills whole factories, and whose demon power, at first veiled under the slow and measured motion of his giant limbs, at last breaks out into the fast and furious whirl of his countless working organs."

This is the machine which has produced the great revolution in production of our epoch. The workman once a craftsman, having all control over the article he produced, next became a part of a human machine, and finally has become the servant and tender of a machine; and by means of all this the fully developed modern capitalist has come into existence.

E. BELFORD BAX and WILLIAM MORRIS.

POSITIVISM AND SOCIALISM.

ALTHOUGH the number of those who profess Positivism as a social creed is not very large, still there are many who oppose Socialism much on the same ground, and who look for improvement in the condition of the workers to the spread of humane ideas amongst the employers, so that it will be well to deal with this larger class of opponents at the same time as the smaller section, who have a more complete system of their own to propose. We will first then build up our straw man Positivism, and I will try and make him as much like the original as I can, then we will proceed to the pulling down process. The entire value of such argument, of course, depends upon whether the straw man resembles in essential points the real thing for which it stands. If I mis-state Positivism I shall be very glad to be corrected.

Comte's Positive Philosophy, as I understand it, is an attempt to bring the whole field of man's knowledge and research within the range of a single system; this to some extent Science had done, and Comte claims originality chiefly in that he first brings Sociology under the same system. It is with his statements and proposals about Sociology that we shall have to deal chiefly. The use of the word Positive I take to indicate the elimination out of the whole field of man's research of what Comte calls the theological element, and which I take to mean any spiritual influence outside the laws of Nature. He does not absolutely deny the existence of any spirit, but having come to the conclusion that we can know nothing about it, he ignores it, and only deals with the relations of phenomena as they can be known and investigated by the intellect.

He arranges the sciences in order, beginning with the one he considers to be the least complex, and about which he thinks we know most, and ending with the most complex about which we know the least. Thus Astronomy comes as one of the first and Sociology the last. He argues that Astronomy is the most simple, and that its phenomena are the most general; the laws which govern the movements of the heavenly bodies which are investigated by astronomy, are fewer and more simple than those which are dealt with by any other science, therefore it is that we know most about astronomy and that it is the most exact of the sciences. Physics comes next as being more complex than astronomy and less complex than chemistry, and so he ascends the scale through physiology which deals with the individual animal, up to sociology which treats of organisations of individuals. This last, dealing as it does with the most complex organisations of the most complex animals, is the science about which he maintains least is known.

I have been obliged to give this short sketch of Comte's positive philosophy, as otherwise we should not have been able to understand where some of his ideas as to the practical organisation of society come from, particularly his great division of power into the spiritual and temporal.

Starting with his scale of sciences he says that in astronomy, the simplest and most easily understood of them all, the general public do not assume that they can know anything about it without special study, but accept the teaching of the specialists and believe it; how much more when the science is Sociology, the most difficult and com-

plex of them all, ought they to distrust their own uneducated opinions, and follow the teaching of those who have made the science their special study! Thus he seeks to demonstrate the fallacy of democratic government, and in his system erects what he calls a spiritual authority, to consist of the wise and learned, of what he calls the speculative classes, or those who deal with abstract knowledge as opposed to those who put it in practice. In the Positivist state the speculative is to be the highest class, and to have charge of education, and supply the theories of sociology, etc., which the next class or the temporal authority is to carry out.

The temporal authority is to consist of those who have the most abstract and most extensive scope in the industrial world, the bankers, merchants, and manufacturers, in order as given. The spiritual authority is to educate the temporal authority, and show it what to do, also to see to the education of all individuals in morals as well as intellectual knowledge, and it is upon the efficacy of this education that the proper working of the system is to depend. The manufacturer and merchant are to be educated to use their positions and wealth for the good of their workpeople and society generally, and public opinion is to be educated to make them do it. The modern Positivists follow this system, though perhaps wording things rather differently. They argue that wealth is a social product, and that the wealthy must hold it in trust for the rest of the community, using it not for their own exclusive benefit but for the good of all; and they wish to educate public opinion to such a pitch that it shall force men so to use their wealth by means, if necessary, of a social boycott. They say that modern industrial enterprises are best managed by individuals, and that the workers must be subordinate to these. Moreover, the industrial questions being the chief affairs now-a-days, these leaders in industry are the best people to have political power, their experience is the widest, and they are most accustomed to deal with complicated relations.

As Professor Beesley put it in a lecture at Oxford last term on the subject of this article, "Government must be vested in the hands of the wealthy, not as the Socialists say, wealth must be vested in the hands of Government," the whole to be directed and instructed by a priesthood without any religious or theological functions.

That is the theory of the Positivists so far as I have been able to gather it. That larger class which I spoke of above, while not going in for any "government by the wealthy" or "spiritual authority," still thinks that the manufacturers will become more humane to their employees through the influence of education, Christianity, and public opinion. It remains for us now to examine this theory critically, and compare it with Socialism as a solution of modern social problems.

As Comte bases what I may call the aristocratic tendency of his government, using the word in its best sense, upon his order of the sciences, we must first deal with that. For a complete refutation of the pretension of science that its so-called laws of nature are representations of the absolute facts of nature, see 'Modern Science,' by Edward Carpenter. He there shows very clearly that what science is fond of calling laws of nature are nothing more than hypotheses, made to fit our present extent of observation, which have to be revised as our field of observation widens. It is not necessary for our argument to go further into that question than to give the criticism on the order of the sciences, which may be found more ably put in the pamphlet I allude to.

Now we saw that Comte maintains that we know most about such sciences as astronomy and least about such as sociology.

But is this not rather an assumption which on the face of it is surprising? When we consider the comparatively few people who even make observations of the stars and their movements, and that every single person makes innumerable observations on physiology, or the things relating to individual organisation and growth, and still more on the relations of different individuals, the way they influence each other and the way they are influenced by different causes. When, moreover, we consider the little we can possibly know about bodies millions of miles away, and also the infinitesimal portion of time during which observations have been recorded, compared with the ages which form the life of one of the least of the heavenly bodies, are we not likely to know much more about man and society than about astronomy, seeing that we have recorded histories in many cases of the entire progress of societies from barbarism up to our present time, and that we have geological evidence forming almost a continuous revelation of the ways of man from the very first? Is it not rather that because we know so very much more of men and society that we find it more difficult to frame hypotheses which shall fit so wide an extent of observed phenomena? And is it not more likely that the exactness which we boast of in astronomy is due to the comparative ease with which we can frame hypotheses to fit the few motions which we have been able to observe, whereas the real life of the universe of stars may be infinitely more complex than our social system, had we the power and the requisite time to make observations? It is as though an observer when planted for one day on a ship, he sees the men go to work for eight hours and then rest for eight hours, and proceeds to make a law that men work eight hours and rest eight hours, and he predicts their actions for the next day or two; the observer dies, and the next generation of observers dies the following day, all convinced of the truth of his law about the actions of these bodies, but on the seventh day the ship gets to port and all work is stopped for some days, where is their law of nature then? Similarly, what can science tell us of the movements of the stars on the seventh day of their lives?

RAYMOND UNWIN.

(To be continued.)