

THE MACHINE PROCESS

(By Thorstein Veblen, in "The Theory of Business Enterprise").

In its bearing on modern life and modern business, the "machine process" means something more comprehensive and less external than a mere aggregate of mechanical appliances for the mediation of human labor. It means that, but it means something more than that. The civil engineer, the mechanical engineer, the navigator, the mining expert, the industrial chemist and mineralogist, the electrician,—the work of all these falls within the lines of the modern machine process, as well as the work of the inventor who devises the appliances of the process and that of the mechanic who puts the inventions into effect and oversees their working. The scope of the process is larger than the machine. In those branches of industry in which machine methods have been introduced, many agencies which are not to be classed as mechanical appliances, simply, have been drawn into the process, and have become integral factors in it. Chemical properties of minerals, e.g., are counted on in the carrying out of metallurgical processes with much the same certainty and calculable effect as are the motions of those mechanical appliances by whose use the minerals are handled. The sequence of the process involves both the one and the other, both the apparatus and the materials, in such intimate interaction that the process cannot be spoken of simply as an action of the apparatus upon the materials. It is not simply that the apparatus reshapes the materials; the materials reshape themselves by the help of the apparatus. Similarly in such other processes as the refining of petroleum, oil, or sugar; in the work of the industrial chemical laboratories; in the use of wind, water or electricity, etc.

Wherever manual dexterity, the rule of thumb, and the fortuitous conjunctures of the seasons have been supplanted by a reasoned procedure on the basis of a systematic knowledge of the forces employed, there the mechanical industry is to be found, even in the absence of intricate mechanical contrivances. It is a question of the character of the process rather than a question of the complexity of the contrivances employed. Chemical, agricultural, and animal industries, as carried on by the characteristically modern methods and in due touch with the market, are to be included in the modern complex of mechanical industry:

No one of the mechanical processes carried on by the use of a given outfit of appliances is independent of other processes going on elsewhere. Each draws upon and presupposes the proper working of many other processes of a similarly mechanical character. None of the processes in the mechanical industries is self-sufficing. Each follows some and precedes other processes in an endless sequence, into which each must adapt its own working. The whole concert of industrial operations is to be taken as a machine process, made up of interlocking detail processes, rather than as a multiplicity of mechanical appliances each doing its particular work in severalty. This comprehensive industrial process draws into its scope and turns to account all branches of knowledge that have to do with the material sciences, and the whole makes a more or less delicately balanced complex of sub processes.

Looked at in this way the industrial process shows two well-marked general characteristics: (a) the running maintenance of interstitial adjustments between the several sub-processes or branches of industry, wherever in their working they touch one another in the sequence of industrial elaboration; and (b) an unremitting requirement of quantitative precision, accuracy in point of time and sequence, in the proper inclusion and exclusion of forces affecting the outcome, in the magnitude of the various physical characteristics (weight, size, density, hardness, tensile strength, elasticity, temperature, chemical reaction, actinic sensitiveness, etc.) of the materials handled as well as of the appliances employed. This requirement of mechanical accuracy and nice adaptation to specific uses has led to a gradual pervading enforcement of uniformity, to a reduction to staple grades and staple

character in the materials handled, and to a thorough standardizing of tools and units of measurement. Standard physical measurements are of the essence of the machine's regime.

The modern industrial communities show an unprecedented uniformity and precise equivalence in legally adopted weights and measures. Something of this kind would be brought about by the needs of commerce, even without the urgency given to the movement for uniformity by the requirements of the machine industry. But within the industrial field the movement for standardization has outrun the urging of commercial needs, and has penetrated every corner of the mechanical industries. The specifically commercial need of uniformity in weights and measures of merchantable goods and in monetary units has not carried standardization in these items to the extent to which the mechanical need of the industrial process has carried out a sweeping standardization in the means by which the machine process works, as well as in the products which it turns out.

As a matter of course, tools and the various structural materials used are made of standard sizes, shapes, and gauges. When the dimensions, in fractions of an inch or in millimetres, and the weight, in fractions of a pound or in grammes, are given, the expert foreman or workman, confidently and without reflection, infers the rest of what need be known of the uses to which any given item that passes under his hand may be turned. The adjustment and adaption of part to part and of process to process has passed out of the category of craftsmanlike skill into the category of mechanical standardization. Hence, perhaps, the greatest, most wide-reaching gain in productive celerity and efficiency through modern methods, and hence the largest saving of labor in modern industry.

(To be continued in next issue)

SUPPLY AND DEMAND.

THIS law decrees that all commodities placed on the market for sale or exchange shall be subject to the laws of the market. Its mandate, when correctly understood, excludes the caprice or will of any individual buyer or seller. Buyers go to the market with the intention of buying as cheaply as they can. Sellers go with the purpose of selling as dearly as they can. When the market is in favor of the sellers prices have a tendency to rise, and vice-versa when conditions on the market are against them. When things become harder to sell, the sellers are forced to ask less for them. Increased difficulty to sell therefore means keener competition on the part of those having similar commodities for sale. It implies giving the same quantity for a lesser price, or more for the same price. In brief, it is with this continued wrangle between buyers and sellers and the relation between supply and demand that prices are determined. Without this antagonism of interests we cannot imagine prices falling when goods are plentiful and rising when the supply exceeds demand.

TERMINOLOGY WITH A DIFFERENCE.

IN the days of Rome and Greece the hewing of wood and drawing of water was strictly a slave's work. The slave's function then was to keep his master in ease and comfort; for no other reason were slaves kept in bondage. So too is it with the wage workers of today. What wages the workers receive in exchange for producing the world's wealth are only equivalent to cover the cost of the food, clothing and shelter that forms their keep from day to day. Commodity production is the direct result of wage labor. Those who receive wages produce the commodities. Those who pay the wages own the commodities. In estimating the time to produce the workers' standard of living it may well be called necessary labor, it being sufficient to cover the cost of the workers' keep, and that any portion over and above this would imply surplus labor or surplus products. In other words, "Necessary Labor" produces "Necessary Product" and realizes itself in "Necessary Value." "Surplus Labor" produces "Surplus Product" and manifests itself in "Surplus Value." In speaking of commod-

ities in general it seems out of place to characterize commodity production as being of a social nature, that a commodity is a social product and that its value is determined by the socially necessary labor, or, necessary social labor involved in its production. C. K. speaks of a distinction with a difference, but I fail to see it. In my estimation commodity production is strictly a class function and if wages signify anything at all it tells us that the production of the world's commodities have been paid for in full. The workers today hew the wood, draw the water, dig the coal, smelt the iron, etc., very degrading occupations I admit, fit only for slaves to do, and if we must speak of value do not let us insult our masters by crediting them with doing something that we would run away from if we could.

It is not often I indulge in spilling ink and I hope this brief article conveys what I intended, namely, Commodity Production is a Class Function, and therefore a Class Product, not a social one, and the value of a commodity is determined by the average labor involved in its production.

MUST WE REVISE THE MANIFESTO?

DAY, by day the class line is being drawn tighter and tighter. The gap between the possessed and dispossessed stands out clearer than ever it did before. "Individual masters no longer exploit individual workers by means of private property in the means of production. On both sides individuals have been submerged. On one hand the working class collectively produce the world's wealth and on the other hand the capitalist class collectively own the means of production, etc." see pages 24-44 S. P. of C. manifesto. In other words, wage workers today collectively supply the directive and physical ability that makes commodity production possible. The capitalist class collectively own the instruments of production and by virtue of ownership collectively own the wealth accruing from its operating. Here we have two distinct class functions. (One performed by Slaves and the Other by Masters.) It being the function of slaves to produce commodities then why not brand them with a proper trade mark—A Slave Product—instead of—a social product.

To state that workers and employees enter into certain definite relations over the buying and selling of labor power does not make the buying and selling of labor power a social transaction but rather a "Class Transaction." as a result of which we have commodity production. In the last analysis the workers have not a vestige of right to what they produce, therefore, commodities are neither "Socially Produced nor Socially Owned." As all commodities are the direct result of wage labor it would naturally follow the value of commodities is determined **Not** by the necessary social labor, etc., but by the "Average Wage Labor Involved in Their Production."

In conclusion, the writer would like to say that socialist terminology, phraseology, is no exception to the law of change. Its building up and breaking down will go on whether the printer wills it or not. For example let us take the Party Platform. Why, it's only a few years ago since it was made more concise and consistent, to harmonise with the object and tactics of the Party. I admit taking part in the agenda then, and now that distinctions with differences have arisen I pen these few lines to test the strength or weakness of our position.

A. G. McCALLUM.

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