

in terms of mechanical efficiency; and is a matter of precisely adjusted cause and effect. (Of course in no case and with no section of the community does the disciplinary effects of the machine process mould the habits of thought and of life entirely into its own image. There is present in human nature too large a residue of propensities and aptitudes carried over from the past; and the machine's régime has been of too short duration, strict as its discipline may be, and the body of inherited traits and traditions too great and powerful, to allow anything more than an approval to such a consummation.

But the machine ejects anthropomorphic habits of thought. The machine technology rests on a knowledge of impersonal, material cause and effect; not on the dexterity or personal force of the workman. The resultant discipline is a discipline in the handling of impersonal facts for mechanical effect. The machine technology is based on the laws of material causation, not on those of immemorial custom, authenticity, or authoritative enactment. The resulting difference in intellectual training is a difference in kind and discipline, not necessarily in degree.

The active forces in present day industry may be separated into two categories: the business classes and the working classes. The ultimate ground of validity for the thinking of the former is the natural-rights ground of property—what may be described as a conventional, anthropomorphic fact, rather than one of cause and effect; and of the latter the ultimate ground is that of causal sequence. Arguments which proceed on material cause and effect cannot be met with arguments from convention-

al precedent; so that the two classes have an increasing difficulty in understanding and appreciating one another's convictions and ideals. The business classes are conservative; their reasoning is based on conventionalities, rather than cause and effect phenomena. But these occupations are not the only ones whose reasoning runs on a conventional plane. The intellectual activity of other classes, such as soldiers, politicians and the clergy moves on a plane of still older conventions; so that if business training is to be classed as conservative that given by these other more archaic employments might be classed as reactionary. On the other hand, in proportion as a given line of employment has more of the character of a machine process and less of the character of handicraft, the matter of fact training is more pronounced. The machine has become the master of the man who works with it; and is an arbiter in the cultural fortunes of the community into whose life it has entered.

The intellectual and spiritual training of the machine in modern life is, therefore, very far reaching. It touches almost everyone in the body of population; but its more direct constraint is enforced upon the operative, whom it affects in all phases of his life, whether he work or whether he play. So that the ubiquitous presence of the machine with its spiritual concomitant of workaday ideals is the unequivocal mark of the culture of the present day.

The conditions of life forced upon the working population by the machine process are such as to cause every serious student of society in its economic aspects to take serious