

Man and His Inventions

**Every Material Advance involves the threat of a Spiritual Repulse.—
Change from Contract to Status.—Machinery
and the Human Factor.**

By J. W. MacMILLAN.

The lot of man is vexed by his successes. Every triumph is a threat against his peace. The paradox of progress is that each new device by which man conquers his environment is likely to conquer man. He makes tools, institutions, social organizations—all sorts of things to enhance and enlarge his life,—and, behold, they claim him as their slave.

What is worse, every material advance involves the threat of a spiritual repulse. There is a sinister transmutation of values, so that the works of men's hands seek revenge upon their souls. The things which were to be conveniences and appurtenances, humble and docile aids to comfortable living, climb into thrones and sanctuaries demanding obedience and homage.

The Eternal Problem.

This is the eternal problem of an increasing civilization, to subdue things under the feet of men; to maintain the supremacy of personality; to conserve the human values inherited from the past amid the wealth and power which are being born. The human race, as it moves on from one degree of progress to another, is continually faced by the double task of making and controlling inventions. Not to make inventions is to remain in barbarism. To make inventions without controlling them is to fall in some respects below the barbarian level.

As a group of human beings advances from nomadism to settled husbandry it passes through a social and moral crisis. The wandering band is poor, easily a prey to famine, weak in fighting power, with a high death rate among the infants and aged. When it turns from hunting and plunder to pastoral and agricultural occupations it gains in wealth and security. Houses replace tents, the food supply becomes regular, the weakly children and old people are less exposed, population increases and with it the fighting force, and substantial defences are erected against attack. The comforts of life are multiplied. Out there is another side to the picture. Private property now appears, and soon there are divisions between rich and poor. The wandering tribe has little property, but all have a share in it. Their chief asset is themselves, and each one is valued for his efficiency in hunting or fighting. Every Indian in North America was a "brave" until the white man overran the hunting and fighting grounds. Every Israelite in the days of the desert marches was a son of Abraham. The wide distinctions between one man and another had not arisen. It is the foothold gained upon civilization that begets the poor man, then the slave, and leads at length, as in the ancient empires, to a prodigal court protected by a mercenary army living on the masses of the people who are driven to excessive toil and stripped of everything,

but the barest livelihood by taxation. The nomadic tribe has become a great nation, but the freedom and joy of life have forsaken the great body of its members.

Before Christian Influences Spread.

The same sort of thing happened in Europe with the change from contract to status. When Christian civilization spread through what is now Germany and Britain, it found the people living rudely and precariously according to the rigid customs they had inherited. Each man stayed in the place and the rank in which he had been born. He fulfilled certain duties and enjoyed certain rights which were apparently as necessary and essential to his life as his sleep or his food. It never occurred to him to alter the terms upon which he lived with other men by means of a bargain. Wages scarcely existed. Prices were fixed at a supposed just figure, to correspond with the inherent value of the article, and it was both illegal and immoral to charge or pay a higher price. The energy of society was devoted to perpetuating and stabilizing these customs, and to preventing any breach of them.

Roman Conception of Contracts.

Then came the Roman conception of contract, winning its way through the universities and the courts, and substituting contract for status. The essence of contract is a bargain, implying the freedom of the parties to it. Society has little concern with the terms of the bargain, but devotes its energies to seeing that contracts, once entered into, shall be performed according to the letter of the bond.

This meant liberty. It set men free. They might now leave their native villages without fear of being apprehended as runaways and sent back to be branded or have their ears clipped. It asserted the equality of men, or else contracts were absurd. European society began to move under its influence. The "cake of custom" had been cracked. But there is another and dark side to the picture. The common run of men suffered by means of the contracts they made. They were silly, short-sighted, credulous and weak in their bargaining. Astute men tricked them. Powerful men, such as the nobility, frightened them. They sold their rights for a song. They accepted leases in place of permanent inheritance. They left their native villages, and lost all security against want, or illness, or old age. Again the material gain involved a spiritual loss.

Machinery and the Human Factor.

One more illustration, drawn this time from more recent days. The civilized world has, during the last century and a half, been discarding tools and replacing them by machines. A machine age enormously reinforces production, but it contains within it elements which may injure humanity.

A workman owns his tools. He is thus something of a capitalist. It is not hard for him to set up in business for himself. If work fails in one place he can shoulder his bag of tools and move to another spot, where he may have better fortune.

A workman uses tools. He is their master and lord. They obey and serve him. He takes them up, lays them down, and applies such speed and force to them as he desires. In the co-operation of man and tool the man is the controlling partner. It is his skill that is all important. Tools are simple things, requiring only to be kept sharp. Thus the tool-user is called upon to exercise himself competently. He plans his work. He is interested in it. He has the joy of creation, the artistic satisfaction of doing a good job.

On the other hand, the machine is the master of the worker. The tool-user has become a machine-tender. The element of skill has gone into the machine, which is a wonder of ingenuity and efficiency. The joy of creation departs, and the worker commonly makes so small a contribution to the ultimate product that he feels no sense of responsibility for it. Besides, the worker does not own the machine. It is a ponderous and costly affair, arranged in series with other machines, and belongs to a capitalist or a joint-stock corporation. His mastery over his own movements is ended. His mobility is hampered. He cannot go into the open market, seeking custom from the general public. He must obtain work from the owner of the machine;

"Beg his lordly mother-worm
To give him leave to toil."

Now, the machine is an advance upon the tool. It multiplies the producing capacity of the worker. Everyone feels that a machine-age ought to

be an age of plenty. So men dreamed in the early years of the machine-age, forecasting a golden age when poverty should be abolished. Yet Sir Robert Peel, after eighty years of rapid industrial progress, doubted if all the mechanical inventions had lightened the daily toil of a single human being.

Man Must Regain Control.

I have used these three illustrations to set forth the major industrial problem of our own day. Never before was the ancient prediction being more palpably fulfilled. "Many shall run to and fro and knowledge shall be increased". We have entered upon the era of the surplus. It is easily within the power of the human race to provide plentifully for its wants. The Malthusian terror of overpopulation is being dissipated. Indeed, it is being replaced by the terror of race-suicide. Once the world recovers from shell-shock, and it is rapidly recovering, there ought to be enough for all.

But man must regain the control of his inventions. They must be made to serve the race and not permitted to become instruments of privilege and exploitation.

It is not an easy problem. The foremost outstanding fact in human society is its complexity. It is not easy to understand. Treating the symptoms may aggravate the disease. Some of the current proposed remedies, which include a minimum of goodwill and a maximum of operative surgery, can do nothing but injury and postpone the cure. They have, however, the value of protesting against the intolerable native of present conditions. What is more dangerous is the self-satisfied apathy, the selfish timidity, and the passionate antagonism to change of those who fear that they may be worse off in any new deal.

Embargo on Securities, a Tax on Wheat

**President of Royal Securities Corporation thus describes
Government Policy.**

The claim that Sir Henry Drayton's prohibition of the importation of English-held securities into Canada is directly responsible for depressing the price of wheat to the Canadian wheat producer, together with the price of all other exported Canadian products, is set forth in an interview with I. W. Killam, President of Royal Securities Corporation.

Describing the Minister's action as "Not a tax on extravagance, but a tax on wheat", Mr. Killam says: "The profit of the Canadian farmer on his year's work has not yet been determined by the sale of his crop. It would take a bold man to prophesy that the average farmer will realize any profit on his crop other than that afforded by the premium funds. It is this precise premium—very probably the measure of the Canadian farmers' entire profit—which Sir Henry Drayton has declared that he intends to use all his powers to keep down to the lowest possible figure."

The cumulative effect of persistent Government violation of the most elementary laws of economics promises to be so seriously detrimental to the

people of Canada that we are compelled to definitely contest the declared intention of the Government to continue by unnatural and illegal means their artificial interference with the natural operations of the exchanges between Canada and Great Britain on the one hand, and Canada and the United States on the other.

"There is urgent need for the creation of such a public opinion against the embargo as will ensure its rejection by Parliament, should the Minister venture to attempt to make it operative by legislation, and thus demonstrate to the investors of Great Britain that the so-called 'embargo' was at no time the sane and considered judgment of the Canadian Parliament or the Canadian people."

"The Minister is undoubtedly effecting by this means an enormous reduction of the aggregate cost in Canadian dollars to the Canadian consumer of goods imported from the United States. Does he realize the fact that every dollar of this enormous saving comes out of the pockets of the producers of all the agricultural produce and manufactured goods that constitute the annual exports of this country?"