THIS MACHINE AGE

Man, of course, is a member of the animal kingdom. But we must concede that he is a peculiar creature among the other denizens of that classification. In getting a livelihood he has figured out a lot of short cuts to beat his natural environment, and the other representatives of the animal arena. His wooly, hairy, and feathered neighbors display little initiative in acquiring wealth, and getting along in life. They seem content to shove their snouts, beaks, or mouths into anything edible they encounter, gorge themselves if the provender provided is sufficient for such a laudable feat, and give no thought to what they are going to serve for breakfast the next morning. Man looks ahead. His experience has taught him to store things. He is, on the average, probably three whole meals ahead of dietary duress.

In his primitive surroundings man saw the advantages that would accrue from enlarging upon, and extending his natural equipment. He realized that by the use of gadgets of one kind or another he could bring himself within the orbit of meal times easier and quicker than if he had followed the example of his dumber associates. Tools were essential to his well being.

Some species of the higher mammals had developed a hand structure that would be physically suitable for manipulating a club or stone axe, if they only possessed the mental discernment to blend means and action.

Some of the apes arrived at the intellectual stage where they can make use of a forked stick to pull a juicy tidbit within reach of their chewing apparatus. But man alone appears to mave mastered the art of using one tool to create another.

Human ingenuity in handling the spear, slingshot, and bow and arrow to get bird and beast to supplement his previous diet appears to have served a lasting purpose. Ages intervened before the transition from the simple machine — the tool — to the complex tool — the machine was effected. His own motive power was sufficient to appease his appetite for a lengthy period, but his economy gradually evolved to a point where a stronger motive power was imperative.

The machine took the place of the tool. Even the simplest form of the machine set in motion numerous tools. The horse was trained to tread the revolving platform, producing power that man himself could never muster. The wind was lured by turning wings, and the resultant energy directed a mill. The force of falling water was brought into play to set wheels in motion. By the time the steam engine, and slide rest were introduced to the field of production the conditions for making machines by machines were far advanced.

Those technological changes had company in other departments of activity. The form of ownership and control was altered. The social system that depended on axe and club to solve its eating problems differed greatly from what existed when society made use of motor, plus transmission mechanism, to direct the tool. The one was communal in nature. The other based on private or class property in the means of life.

When the individual went out to obtain food, with the crude hand weapon, he was a free agent within the confines of tribal custom. He knew no master outside the rules adopted by his social group.

The individual in the machine age fared worse. He was compelled to offer his labor power for sale to those who owned machine, mill, and factory and who purchased the commodity labor power on the same terms as they would any other form of material essential to the productive process.

The first Industrial Revolution made an impressive and permanent change in European economy. Mechanical agents like the spinning jenny, flying shuttle, spinning mule, and power loom were installed in factories to replace the medieval craftsmen, and supply the demand for commodities that was being felt throughout the then known world. Those mechanical devices, designed to duplicate and multiply the muscle power of the cratfsman, meant much more wealth produced in a given time.

Today another Revolution is threatened, involving the brain as well as the muscle of our social life. The eminent Prof. Wiener, of the Massachusetts Institute of Technology, who has written the first book on the behavior and control, in man and machines, predicts that the Second Industrial Revolution is just around the corner.

This book — "The Human Use of Human Beings" — is a serious and powerful commentary on the new machine age and what it means. Great automatic factories, equipped with machines that the erstwhile horny hands of labor never even touch. Giant mechanical brains, electronic memories, and a spontaneous computer, with a model central nervous system adapted to the needs of mechanical control. This is the situation, according to the worthy Doctor, that we have to face.

In case those automatic thinking machines attain the status outlined, then we obviously conclude that they enter into active and disastrous competition with the labor force already existing.

The machine assumes the position of a chattel slave. From the viewpoint of the industrial tycoon it makes an ideal employee. It never begs for an afternoon off to attend its grandmother's funeral. It never shows up in the morning with a hangover that impedes its productive value. It doesn't belong to a labor union, and makes no claim for higher wages, shorter hours, or a little more overtime. It has none of the viscious habits that mar the militant wage slave. All it requires to perform its function is a daily squirt of oil in its crevices to keep its joints from creaking and its brains from rusting.

As social students we are not given to accepting fantastic theories at their face values. We are realists in appraising the economic situation. But our concept of reality is not the old mechanical notion that we merely accept "things as they are," any more than adjusting ourselves to reality implies that we are satisfied with what exists. Reality is not static or unalterable. It, too, is susceptible to the law of change, regardless of whether such change is for the better or the worse.

We encountered trends in our social environment, and observe them. We anticipate what may happen if such trends logically develop. When we read spectacular accounts of automatic machines, we look around us and see what has already been accomplished. We make deductions from our observations.

In the local office of Internal Revenue there is at present, working full blast, an electronic brain computer fashioned to expedite income tax returns in the area. This intellectual computer, containing 1500 electronic tubes, and three miles of wiring, is a glutton for work. It can check the tabulations of the person filling out the form, compute the tax, catch any possible errors such as the listing of more exemptions than dependents, on 100 returns per minute, without even taking time out to have a cup of coffee, or sneak to the powder room to puff a cigarette. After seeing this professional mathematician at work we have less fear of the element of fantasy that might be lurking in the pages of Dr. Wiener's book.

One thing seems certain — that if and when the anticipated Second Industrial Revolution takes place the problem of ownership and control