

THE CASE FOR THE MACHINE

BY WARREN S. THOMPSON

MUCH has been said in recent years about the Machine Age and the way in which machines have mechanized man's life until he is no longer quite human. We are told of the speed at which he is forced to move to keep up with his machines, of the fatigue resulting from the same monotonous movements hour after hour, of the close attention which results in nervousness and irritability, and of the care with which he has to watch his step among the machines which surround him while at work. In addition to the general degradation of the personality of the machine-tender, the machine is also accused of so mechanizing and routinizing the life of the rest of us that we suffer from it quite as much as the laborers themselves. It is said that the whole tempo of our life has been increased to the point where it is wrecking the philosophic calm which characterized the pre-machine age and that we are becoming the servants of our automobiles, our airplanes, our radios, our telephones and telegraphs, our electric motors, our typewriters and our calculating machines.

One often gets the impression from these arraignment of the machine that if only we could destroy it and return to the age of hand labor we would rid ourselves of many, perhaps most, of the unlovely problems of social and personal adjustment which so harass us today; for it is quite generally assumed that in the past handwork and the skill associated

with it, together with the slower pace of that time, made life far richer, far more interesting, and far more satisfying for the majority of people than is possible today. We all have read diatribes against the machine in which it plays the rôle of a veritable Frankenstein monster, rending and consuming its creators.

Having been born into the family of a skilled worker and having learned a trade in the days when handwork was far more the usual thing in that trade than it is today, I have often wondered whether much of this inveighing against the machine does not come from men who never had any actual experience in handwork, and whether they are really in a position to compare the life of today's machine-tender with that of yesterday's handworker.

Recently I have spent somewhat more than a year in lands where the machine is of but little moment in the lives of the masses of the people. This experience has more than ever confirmed my belief that those who most vigorously damn it know very little about the conditions of daily life in a handicraft civilization (which, by implication at least, they glorify when they hold the machine responsible for most of the evils of our time). I have come to feel that they have failed to comprehend the significance of the machine in human life, that they have confused its effects as such with its effects in our own particular social organization.

If I were to set up a thesis here, it would be that the machine is an unmixed blessing to the mass of mankind, and that the evils of our time, which are so frequently attributed to it, result not from its inherent nature but are rather the consequences of the social and economic organization within which it functions. In other words, we have not yet learned how to organize our community so that we can make the proper human use of our machines. We have allowed robustious men to control their use and output in such a way that many of us cannot call our souls our own. Instead of using machines to release ourselves from drudgery and monotony, we have allowed them to fall into the control of men who regard them, not as offering economic salvation to man, but rather as offering only a new opportunity to make use of their fellows.

Perhaps the most oft-repeated criticism of the machine is that it makes an automaton, a robot, of its operator, and jumping Jacks of the rest of us. A New York City literateur visits Dearborn for a few hours and not only psychoanalyzes Henry Ford but tells us how operator 11111 screws nut 1234 on bolt 5678 six hundred and thirteen times an hour for eight hours. He then asks us to behold this human robot and to compare him with the old-fashioned handworker who leisurely hammered out his bolt and threaded it by hand and then did the same with the nut and in the end could exhibit with pride a finished product over which he could proudly exclaim, *Feci! I have made it!* Usually the picture is finished at this point and one is left to infer that the stalwart smith has received a benediction from his work which the machine-tender does not get from his.

I am not saying that there is no hand labor which shares the joy of creation

with the true artist, nor am I saying that the work of the machine-tender is generally satisfying. But what I do maintain is that most handworkers are far more the slaves of their simple tools from the standpoint of the smothering of the spirit than are the machine-tenders in a modern factory the slaves of their machines. For instance, I have watched the Chinese smith make the diminutive sickles with which rice is harvested. They sell at about a cent apiece. They are neither artistic nor durable and to save my life I cannot see where he has any reason for pride in his work. He is his own boss; yes, perhaps! But his neighbor across the way, making the same article, is a keen competitor and he must work distressingly long hours (twelve to fourteen a day) to keep up with him. If he and his neighbor get together and raise the price a copper or two, then the smith in the next village will undersell them. It is true that he does not have to adjust his pace to that of a machine, striking so many blows a minute or making so many revolutions a second, but day in and day out he has to compete with other workers and can take but little respite without falling behind and losing his trade.

And what does he get for this privilege of being his own boss for the twelve to fourteen hours he works? An occasional spell of gossip with other tradesmen or customers, the right to strike twenty instead of thirty blows a minute if he so chooses, at the end of the day the right to go hungry to bed in a foul and stuffy room, also the privilege of spending his ten or fifteen cents a day on rice and a few vegetables, and occasionally to buy a cheap piece of cotton for a new coat or pair of pantaloons. I have not overdrawn the picture and I could cite numerous similar instances among brickmakers,

tapestry weavers, silk weavers, rice-pot smelters, china painters and so forth where the blessings of handwork are precisely such as I have described in the case of the sickle maker. I could go further and point out that the finished product in most of these industries is neither artistically good nor practically durable.

II

When I say that the worker in a handwork civilization is more the slave of his tools than the machine-tender is a slave of his machine I mean that the former must work exceedingly long hours, often at very exhausting work, that he seldom has any time for recreation, that if he has time he has neither the means nor the equipment to make good use of it, that he is generally desperately poor, so that as a matter of fact he does not, on the average, keep body and soul together more than about half as long as we do, and that he is usually treated as a mere beast of burden by the one per cent or less of the population that gathers unto itself nearly all the product of his labor above the barest necessities of a poverty-stricken existence.

In a handwork civilization the dreary, harsh and almost bestial nature of much of man's work is difficult for most of us to conceive. Fuel is packed on the back or pushed in a wheelbarrow; water is carried in the same way; stevedoring is done on the back; cloth is woven largely by hand; food is scarce and the diet is exceedingly monotonous—indeed, is what in most cases we would only consider fit for our cattle and our poultry; clothing is coarse and frequently, if not usually, inadequate; housing is bad beyond description (25% of the total population are actively tuberculous in many areas); the traveler moves largely by the applied hand

power of his fellows, and so forth. I have not exaggerated the hardships of the common people in such a civilization, nor is it unfair to say that as compared with one in which the machine has become important it is bestial in many ways.

Even the artist rug-maker, jeweler, tapestry weaver, pottery glazer, china painter, and woodcarver, along with all other artisans, have to work such long hours for so little pay and under such frightful conditions (poor light, bad ventilation, cold or hot rooms and so forth) that there can be but little joy in their creative work. Lest it be thought that I exaggerate, one only need to inspect some of the figures showing the death-rate in London—a city of handwork and trade—two centuries ago. It approached 50 for 1,000 of the population and was about four times what it is today. Even among the cottage workers of that day conditions were but little better, and within the year I have seen cottage workers in China doing fine work under conditions in which only the exceptional worker could hope to live past forty or forty-five. These conditions were not unusual, either as regards the industry or the country, for a handicraft civilization.

Handwork is in general so little productive that as long as it persists 95% or more of the people must live on a bare subsistence level, in squalor, cursed with all manner of disease, suffering from cold and hunger, and leading a most wretched existence. The readiness with which people from such a civilization migrate to a machine civilization is the best evidence of their own appraisal of the relative merits of the two. If one cites against this the fact that many of our immigrants return to the old handwork order of things, it will be in order to point out that they return either because their jobs here do

not hold out or because they have accumulated enough to enable them to return home to join the ranks of the small class which can exploit the cheap labor of its fellows.

In comparing the actual physical labor of the handworker with that of the machine-tender, I must say that I should greatly prefer to be the machine-tender. In our worst factories his day seldom runs beyond nine or ten hours and, in consequence, he has some time to do as he pleases and more means to do it with than ever the handworker had.

But even if what I have just said is granted, it will probably be countered with the statement that after all, in past ages, only a few people were engaged in the trades while in industrialized lands today the majority of people are more or less so involved; that formerly the great majority of men tilled the soil and thus were not driven to work or to live as the handworkers I have described.

As a matter of fact, it is quite generally assumed that the peasant, the agriculturist (perhaps four-fifths of most peoples in the past) had an opportunity to give expression to his personality and to be a man in his own right, which the machine-tender of today lacks. This myth of the happy and contented peasant making his own tools to work his own land, to produce his own food and clothing, should have been exploded long ago by the facts that jump up to meet us everywhere, but alas, it has not! Of all the men in the world who are enslaved by their tools, the peasant is from many angles the most helpless. Even in the United States, where the farmer is in heaven compared with the peasant in older lands, most country boys cannot get off the farm and into the factory and accounting office fast enough to suit them.

But even so, our farmers are not typical of the peasants in most other parts of the world. For two or three generations now they have had reasonably good plows, harrows, seeders, mowing-machines, reapers and a relative abundance of horsepower. In most parts of the world, or at least in those parts where hand labor is customary, the peasant's is the most bestial work in the community. He labors his land with crude and inefficient tools and must perform in the most slow and painful manner what the machine farmer does easily and quickly. In China I have seen men and women harnessed to the plow alongside a donkey or horse.

If those who laud the sturdy independence of the peasant who makes many of his own tools and tills his own land and markets his own crops would only spend a few days in almost any peasant community where hand labor prevails and study the situation of these peasants, they would be startled at what they would discover about their life. They would find in many communities that 50 to 75% of the peasants are tenants giving one-half or more of what they raise to the landlord; that this same landlord or his relative is the grain merchant and money lender; that most of the peasants have to sell a considerable part of their crop at harvest time, when prices are low, in order to pay debts that they have contracted in buying food and seed in the Spring and Summer, when prices are high; and that interest rates are 3 or 4% a month (not a year). They would further find that the peasant has to do a large part of the work of preparing the seedbed with a primitive plow and hoe and shovel and rake, which would break any man's back and leave him far more exhausted at night than is the machine farmer among us, and that he has accomplished hardly a tithe of

what our machine farmer does in the same period.

Then at the end of the season, when the peasant comes to sell his produce, he often has to carry it on his back to market and bring back in the same manner the goods for which he trades it. He does this over roads which we would consider utterly impassable and at a cost, in terms of labor, which is appalling. Furthermore, when he has arrived at market he finds himself wholly at the mercy of the organized buyers, if indeed he does not have to sell directly to his creditor at the latter's price, as is frequently, if not generally, the case. The handworking peasant the world over is a hewer of wood and a drawer of water. He is a veritable beast of burden and is always exploited by landlord and villager unmercifully and without cessation. He produces but little above a bare existence year in and year out and he has a goodly part of that little taken from him by the shrewder townsman, who regards him as a bumpkin.

III

Unfortunately, the picture just drawn of the handworking peasant has some likeness to our more mechanized farmer, but I submit that as the machine enables the latter to produce more, he gets more for himself and he has more time and more energy to rebel against his exploitation by others; and that to the degree he becomes a machine farmer he has the energy and the will to cease being the lowly beast of burden he has been in the past. It may well be that he is also losing some of the love of a particular piece of land which so often characterizes the handworking peasant, but he is also losing poor health, the dull, clod-like mind, the feeling of inferiority, the abject subservience and the

utter hopelessness which have generally been his lot in past ages.

But even if it be granted that the hardship of life under a handwork régime is such as I have described it for the artisan, the carrier and the peasant, it may yet be urged that somewhere in this round of monotony and weariness a spirit of pride in work, of independence and of being master of his destiny creeps into the soul of the handworker which the machine-tender can never possess. It seems to be quite commonly felt that the machine-tender is driven by some impersonal, relentless and malignant force which makes of him another machine—a being bereft of human dignity and lacking in certain fine qualities of spirit which were the prized possession of the handworker.

I have pondered this matter much as I have watched many different peoples at their handwork and then I have come home again and have watched our own workers at their tasks in the factory and I cannot feel that the machine has been aught but a blessing to the mass of the people who have come within its influence. I have come to feel that the strictures on it as a debaucher of men have too often been made by comparing the machine-tender with an ideal for man in the mind of the writer, rather than with the actual handworker as he is found over the greater part of the earth today.

On comparing the actual machine-tender with the ideal worker we might well have, I agree with much that is said of the stunted life of the former. But when I think of what I have seen in handicraft civilizations I have no desire to see the Golden Age of handwork return. It is like all other Golden Ages of the past; it is only golden when seen in the haze of an ideal projection of the author's dreams into a dim and largely unknown past.

THE ROCK-CANDY MOUNTAINS

BY JAMES STEVENS

TWENTY-FIVE years ago Farmer Fagan was a peerless leader among the jungle-bums of the Western roads. Long after he came to his disastrous end I heard tremendous stories about him and his twin stomachs. They were a legend among the camp-men. The Fagan stories had a personal interest for me, as I had encountered their hero while I was yet a pious ranch boy, and he had greatly influenced my life.

At that time I was well started in the respectable career of a cheese-maker. My relatives agreed that I had a shrewd talent for this honored trade. At fourteen I was a prize student in an Idaho agricultural academy, where ranch boys were enabled to pay their way through a high-school course by working five hours a day. My job there was in the milk-house. When my first term ended, the dairy foreman, Mr. Predder, kept me on as a hired hand. I was the pride of my family.

"There you are, not fifteen yit, and already holdin' down a man's job and drawin' man's wages," my cousin by marriage used to say. His name was E. U. Lape, and as he was a section-hand who lived in the nearby ranch town, I saw him often. "Time you come of age you oughter be a full-fledged cheese-maker," prophesied E. U. Lape. "Likely you'll have your own factory afore you're thirty. You should say a prayer of thanks every blessed hour of the day for your won'erful opportunity."

I modestly agreed that I was doing mighty well. I saw no other way to look at my circumstances and prospects. E. U., for example, was past thirty, and his only hope was to become the boss of a section in another ten years. And a section-boss did not begin to have the standing of a cheese-maker in our Idaho valley. So I was properly thankful for my opportunity, until the afternoon of late Summer that brought Farmer Fagan from the jungle of the ranch town to the milk-house door.

The day was an Idaho scorcher. Heat waves shimmered over the great red dairy barn and dimmed the rolling hills of alfalfa stubble. In the barnlot cows snoozed wherever shade fell, rousing only to switch the fly swarms. Inside the milk-house the day was more tolerable. I had just flushed the cement floor, and the moist air had a refreshing feel and smell. Still, I was wilted. I had been working with hot water and steam for ten hours. It was now two in the afternoon. I could do as I pleased until four, when the evening milking would start. The first thing I did was to drink a dipper of cold buttermilk. Then I sprawled on the separator bench. It was in the coolest corner.

Almost at once I fell into a morbid doze. A broody spirit had been growing in me with the hot weather. Whenever I had a minute to myself it would rise like a cloud and smother all my fine thoughts about my job. Lately it seemed I could think of nothing but the sour smell of the milk-