What workers should know about



... and what employers don't tell them.

by Eric Hass and Stephen Emery "What Workers Should Know About AUTO-MATION...and What Employers Don't Tell Them," describes accurately the contents of this pamphlet. This is no technical discussion; it is a soundly reasoned, fact-supported explanation of the social and economic implications for workers of this new development in technology. It not only answers the glib lies employers tell their workers about automation, it shows why they lie.

Most importantly, the pamphlet tells what workers must do to convert automation from a menace to their jobs into a means of relieving mankind forever of arduous toil, into a blessing that will end forever both want and fear of want.

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Introduction

In the past several years a score or more of books, and hundreds of magazine and newspaper articles, have discussed the subject of automation. Almost without exception their authors accepted the premise that the interests of capital and labor are identical, and that everyone will benefit from automation.

The Socialist Labor Party takes a completely different position. It rejects as utterly false the premise of a community of interests between the capitalists and the workers. Instead, the Socialist Labor Party proves that there is in fact a deep and irreconcilable conflict of interests between these two classes. And, as is made plain at the very outset of this pamphlet, the Socialist Labor Party stands on the side of the workers in this conflict.

Most workers who have given thought to the matter realize that automation today represents an awesome threat to their jobs and livelihood. They are suspicious of the reassuring claims put out by the capitalists that automation will prove a great boon to labor. However, they cannot answer and refute the capitalist propaganda because they are not equipped with a sufficient understanding of how capitalism works, and particularly how they are exploited under this system.

This pamphlet conveys this necessary understanding. No worker who reads and studies it carefully will ever again be deceived and misled concerning (1) who benefits from automation and (2) what it means to the workers in capitalist society. For here is explained why, under capitalism, automation can only bring more misery and hardship for the vast majority, the workers.

But this pamphlet is no cry of despair. Candor and working-class interests require that there be no playing down of the potential evil consequences of automation as it is introduced under capitalism. On the other hand, it is quite obvious that automation is big with the promise of material abundance for the human race. The problem before us is that of making this material abundance available to all the people. This can only be done in a Socialist society. Why this is so and how Socialism can be established are fully covered in this work.

Automation will be a curse to labor as long as the means of social production are privately owned, and production is carried on for sale and profit—in short, as long as we live under capitalism. But when this outmoded, contradiction-ridden capitalist system is abolished, when the industries are socially owned and democratically administered, and when production is carried on to satisfy human needs—in short, when Socialism is established—automation will be a blessing for everyone.

This is what the workers should know about automation.

1. Why They Lie

NINETY-NINE PER CENT of what employers say for public consumption about the effects of automation on jobs, skills, living standards, etc., should be discounted as unadulterated pap. It is meant to allay the pervading fear among workers that automation will destroy their jobs and render their skills useless. And it is fed to them in an endless stream of soothing assurances. These assurances may or may not contain elements of truth. *Elements* of truth are a well-known feature of capitalist advertising, but the primary purpose of advertising is not to tell the truth, but to sell. And the capitalists look upon the job of allaying labor's fears as a *selling job*.¹ The workers must be "sold" on automation at least to the point where they offer no resistance and accept with resignation the painful consequences.

Sometimes, in dishing out the pap, the capitalists are carried away by their own rhetoric. Thus, in a pamphlet entitled, *Calling All Jobs*, and written for distribution among workers, the National Association of Manufacturers rhapsodizes:

"Let the worker face what is to come with hope in his heart, not with fear in his mind. Automation is a magical key to creation, not a blunt instrument of destruction, and the worker's talent and skill will continue to merit reward in the fairyland of the world to come."

¹ "I think a better selling job has to be done on the social desirability of increased mechanization..."—G.P. Hitchings, Ford Motor Co. executive. (*Fortune*, October, 1953.)

In Chapter Two we will take up *and refute* each of the arguments and contentions with which the capitalists try to soothe us. Here we will show why they lie, why they feel impelled to do a "selling job," why, in short, they do not discuss automation with the workers candidly and with strict regard for truth.

"AUTOMATE OR DIE"

First of all, let it be understood that "To automate or not to automate?" is not a question on which capitalists have a free choice. Capitalism is a jungle-like competitive system in which only the "fittest"—meaning the most efficient exploiters of labor—survive. Mr. W.C. Newberg, president of Chrysler's Dodge Division, put the issue that confronts employers in the bluntest possible terms. He said, "Automate or die."²

In its *Employee Relations News Letter*, April 8, 1955. circulated to its own management, General Electric said "the employer must automate to stay alive." It added that "it is no longer a question of whether industry in general will automate, but only whether a *given company* will be a leader or fall behind..." The letter argued that "it is imperative ... that he [the employer] remove from his payroll any substantial surplus of employees ..." (Italics GE's.)

This is a cold-blooded but accurate presentation of the question. It throws no little light on the plans that are periodically announced by the big corpora-

² Quoted by Bernard Nossiter in *The Nation*, July 23, 1955.

tions for "capital spending." Such plans are presented to the workers as evidence of the capitalists' boundless faith in the future. Actually, it is evidence of the compelling force of competition. The New York *Times*, May 2, 1954, noting that more than half of the projected capital investments were to go into *modernization*, said this fact "indicates that capital investments... may be dictated by the need to keep abreast of competitors rather than by a sanguine view of the future."

PROFITS AND "SOCIAL RESPONSIBILITY"

Competition is by no means the only force responsible for the spectacular spread of automation through America's offices and factories. A companion force is the insatiable profit-hunger characteristic of the capitalist mode of production. To the individual capitalist it appears that this hunger may be better satisfied (and his competitive existence made more secure) by "cutting costs," meaning, in practice, reducing the amount of labor time used in producing a quantity of commodities.

It is important to note that it is not increased productivity *per se* that the capitalist is after. As Dr. Seymour Melman, professor of industrial engineering at Columbia University, put it: "A rise in productivity never is an explicit end in itself. It's merely the derived effect of an attempt to do something else—reduce costs."

The capitalists pursue this goal—"cost cutting"—with hard-headed (and hard-hearted) disregard for the consequences to the workers affected. But the capitalists have learned the value of discretion. No longer do they say, "The public be damned!" Instead they put on an elaborate show of "social responsibility" and hire expensive public relations men to present their actions in the most virtuous light.

Among themselves, however, they are more candid. The real attitude of capitalists toward workers is implicit in the following observation made to fellow capitalists by Mr. John I. Snyder, president of United States Industries, Inc.:

"It often has been thought that automation in its ultimate sense in any industrial plant is a desirable goal because it will reduce labor costs . . . But reduction of labor costs is only a part of the point. Another highly desirable feature of automation in relation to labor is the fact that machines are easier to control than people . . . "³

Equally candid on the point is the following comment made by Dr. J.J. Brown, of Aluminium Ltd., before a Fortune Round Table discussion and printed in *Fortune*, October, 1953. Said Dr. Brown:

"We've got a lot of men on these assembly lines. Now men, by definition, are difficult and tricky things to play around with. You have employee-relations men, timestudy men; you have training and education directors; you have personnel men, washroom men, cafeteria men. You have got a public-relations problem. That all costs money. My point is this: that if we could take some of the money that we are spending in trying to ease the pain of our assembly-line personnel and apply that money for some research to get the men out of there entirely, we would be far better off in the long run."

³ Quoted by Robert Bendiner in *The Reporter*, April 7, 1955.

Does this sound as though capitalists were guided by a sense of "social responsibility"? We think not!

LABOR POWER IS A COMMODITY

Now here is a vital point. Under the capitalist system, labor power (the ability to labor) is a commodity. As Karl Marx noted in Capital: "The whole system of capitalist production is based on the fact that the workman sells his labor power as a commodity." And it is as a perambulating embodiment of this commodity that the capitalist regards the worker. Like the buyer of any other commodity, the capitalist tries to buy labor power as cheaply as possible—and to squeeze out all the use value there is in it. Apart from paying the worker his wages—the price of his labor power—the capitalist feels no sense of responsibility for the worker. He may boast that automation lightens labor and raises living standards, but this is part of the "selling job" and has no place whatever in his motivations. At the aforementioned Fortune Round Table. Mr. J.J. Jaeger, of Pratt and Whitney, acknowledged this, saying:

"I don't think we are consciously trying to ease the burden of our workers, nor consciously trying to improve their standard of living. These things take care of themselves. They have a feedback of their own that closes the loop automatically. I don't think that it is the part, nor can it be the part, of industry to try to plan the social aspects of this thing." (*Fortune*, October, 1953.)

THE EVIL IS CAPITALISM

We shall see how "these things take care of themselves." Meanwhile, it will not have escaped the thoughtful reader that to understand the implications of automation in present-day society one must also understand certain basic facts concerning the capitalist economic system. For automation will create no painful problems under Socialism. On the contrary, when industry is collectively owned and democratically managed by the workers themselves, automation and all technological advances will bring only blessings-greater abundance for all and less labor. Automation creates painful problems today, or rather it sharply aggravates already existing problems, only because the industries are privately owned and operated in the interests of an owning and ruling class.

Before automation can be transformed from a threat into a blessing the American workers must grasp this pregnant fact. They must understand that willy-nilly they are engaged in a class struggle with the capitalists and that the capitalists have a material interest in deceiving them and insuring their continued submission.

The workers—and by workers we mean all who must sell their labor power (brain or brawn) in order to live—should regard with skepticism everything the capitalists say on the subject. They should appraise and analyze automation in the light of their own class interests. Only then can they arrive at the central truth, viz., that, not automation, but private ownership is the thing to fear and fight.

2. Answers to the Lies

PAST EVENTS are casting a shadow across the present. The events are those of the Industrial Revolution that took place roughly in the latter half of the eighteenth and first half of the nineteenth centuries, when machine production superseded handicrafts. The onset of the Industrial Revolution was accompanied by unprecedented unemployment and intense suffering among the workers. In *Capital*, Karl Marx described in moving terms the agony inflicted by infant capitalism on the working class, saying in part:

"History discloses no tragedy more horrible than the gradual extinction of the English handloom weavers, an extinction that was spread over several decades, and finally sealed in 1838. Many of them died of starvation, many with families vegetated for a long time on $2^{1/2}$ d. [about five cents] a day."

For a time the workers reacted against the introduction of machines violently and irrationally. Wrote Marx:

"The enormous destruction of machinery that occurred in the English manufacturing districts during the first 15 years of this century, chiefly caused by the employment of the powerloom, and known as the Luddite movement, gave the anti-Jacobin governments of a Sidmouth, a Castlereagh [Tory leaders], and the like, a pretext for the most reactionary and forcible measures. It took both time and experience before the work people learnt to distinguish between machinery and its employment by capital, and to direct their attacks, not

against the material instruments of production, but against the mode in which they are used."—*Capital*, Chapter XV, "Machinery and Modern Industry."

The modern capitalist class, acutely alive to the fears that are awakened among the workers by labor-displacing technology, and anxious to prevent worker-resistance to its introduction, has concocted a number of soothing-syrup lies and half-truths that it is ladling out to the workers in liberal doses. Here we shall take up these lies and deceptions one by one, meeting head-on all the arguments advanced to support the general claim that automation *under capitalist auspices* means, in the words of Mr. Benjamin Fairless, former head of U.S. Steel, "progress toward a richer, fuller life and a better, freer world."⁴

SUFFERING "TEMPORARY"-APPLICATION "GRADUAL"

1. The argument that, yes, there will be some "temporary dislocations," but displaced workers can find jobs elsewhere and besides the whole thing is "gradual." Samples of this argument follow:

"This is not to say that there *might* not occasionally be a relatively few *short-term* displacements here and there from the automation process itself—even though the gloomiest detractors of automation are finding it hard to uncover any really convincing evidence of such displacements."—General Electric's *Employee Relations News Letter*, April 8, 1955. (Italics GE's.)

"Dislocations do occur in some instances, and men do have to change from one job to another."—Mr. Benjamin Fairless in

⁴ Human Events, March 5, 1955.

Human Events, March 5, 1955.

"I am not impressed that it's going to have any explosive effect. It's gradual."—Rep. Wright Patman, chairman of the subcommittee of the Joint Committee on the Economic Report, as quoted by the New York *Times*, Oct. 29, 1955.

It is a curious and significant fact that the very same arguments the capitalists advance today to justify the havoc created by technological advance among the workers were advanced more than a hundred years ago by the capitalist beneficiaries of the Industrial Revolution! Thus Marx, answering these arguments, wrote:

"It is impressed upon the work people, as a great consolation, first, that their sufferings are only temporary ('a temporary inconvenience'), secondly, that machinery acquires the mastery over the whole of a given field of production, only by degrees, so that the extent and intensity of its destructive effect is diminished. The first consolation neutralizes the second. When machinery seizes on an industry by degrees, it produces chronic misery among the operatives who compete with it. Where the transition is rapid, the effect is acute and felt by great masses."—*Capital*, Chapter XV, "Machinery and Modern Industry."

It was at this point that Marx made the observation (quoted at the beginning of this chapter) that "history discloses no tragedy more horrible than the *gradual* extinction of the English handloom weavers..."

The truth is that, for the workers who are displaced, automation is about as "gradual" as a guillotine. These workers may not be the operators of

the machines actually replaced by automation equipment. It is possible that these workers have seniority that enables them to "bump" workers lower down on the seniority list. The point is, though, that *some* workers get the ax and it is small consolation to them to reflect that automation is introduced "gradually."

AUTOMATION IN SEVEN-LEAGUE BOOTS

Actually, automation is traveling in seven-league boots, and the capitalists know it and glory in it. Thus, *Fortune*, November, 1955, in a passage boasting of the rapid rise in industrial research expenditures, said:

"Automation and electronic computers are possibly no more revolutionary than past technical 'revolutions.' but the celerity with which they are being adopted probably will turn out to be revolutionary. It took 100 years, as Harvard's Wassily Leontief is fond of pointing out, for the steam engine to establish itself, fewer than 50 years for electric energy, fewer than 30 years for the internalcombustion engine, fewer than 15 years for the vacuum tube. And the solar battery was installed by AT&T a little more than a year after it had gone through its final development."

The article then went on to discuss the compelling forces (especially competition) that accelerate the application and growth of automation.

Strictly speaking, the mechanization equipment that has been going into American coal mines in recent years does not come under the head of automation. Nevertheless in their socio-economic effects there is no difference between Ford's auto-

mated engine plants and the Colmol and similar high-production coal-mining machines. And the heavy and chronic unemployment that persists even in "boom" times in the coal-mining regions bears witness to the evil consequences to the workers. The following figures tell a story that may soon be told of workers in steel, autos, textiles, and many other industries:

"In 1947 an estimated 419,000 miners dug 631 million tons of coal, or about 6.42 tons a man each working day. Last year employment was about 225,000. But production per man was up to about 10 tons a day."—New York *World-Telegram & Sun*, Jan. 3, 1956.

Mechanization of the coal mines not only eliminated labor in the mines that were mechanized. It forced hundreds of under-capitalized mines to the wall and threw their workers into the ranks of the unemployed. A similar fate awaits workers in industries susceptible to automation. Competitive law decrees that capitalists must "automate or die." The employees of those who "die" are the uncounted victims of capitalist-sponsored automation.

Summing up, for some workers, luckier than their fellows, the "dislocation" (a capitalist euphemism for the suffering and heartbreak of unemployment) may indeed be brief, but for the working *class* the suffering is bound to intensify as automation advances.

HOW MANY JOBS MAKING MACHINES?

2. The argument that automation creates new jobs in the automation-equipment industries. Sam-

ple of the argument follows:

"The building of machines themselves—plus their installation, maintenance, and the construction of new factories to house them—has opened up thousands of job opportunities that never existed before."—Mr. Benjamin Fairless in *Human Events*, March 5, 1955.

Literally, it is doubtless true that automation has "opened up thousands of job opportunities"—but for every job automation has opened up it has destroyed many. If as many jobs were created by automation as are eliminated, what laborsaving advantage would there be? Marx dealt with this one also, saying:

"But suppose . . . that the making of the new machinery affords employment to a greater number of mechanics, can that be called compensation to the carpet makers thrown on the streets? At the best, its construction employs fewer men than its employment displaces."—*Capital*, Chapter XV, "Machinery and Modern Industry."

Actually, there are few industries in which automation is spreading more rapidly than in the automation-equipment industries. In its report on "Automation and Technological Change," the Subcommittee on Economic Stabilization of the Joint Committee on the Economic Report spoke optimistically about "whole new industries [that] have arisen." It said:

"The electronics industry, for example, is today made up of hundreds of companies, both large and small, which have sprung up all over the country, employing ever-increasing numbers. The production of specialized

transfer machinery for use in the metal-working industries is another instance of an essentially new, growing industry."

What are the facts? According to the testimony of the U.S. Bureau of Labor Statistics "employment [in the electronics industry] has not kept pace with production during the past seven years. Electronics output in 1952 was 275 per cent higher than in 1947 but was produced by only 40 per cent more workers."⁵ The trend here is unmistakable.

As for the production of transfer machines it is noteworthy that the \$15.5 million plant of the H.C. Cross Co., of Detroit, manufacturers of such spectacular job-destroying transfermatic machines as Plymouth's new automated engine-assembly line, employs only 500 workers. True, the Cross Co. is building a new \$5 million plant, but this should be cause for trepidation under the capitalist circumstances, rather than rejoicing.

Meanwhile a simple but pertinent fact seems to have escaped those who see in the growth of the automation-equipment industries a balm for labor. It is summed up in this query: What has happened to the workers who made the *old* machines? Deponent sayeth naught.

REDUCING THE LABOR FORCE VIA ATTRITION

3. The argument that, yes, automation eliminates jobs, but instead of actually letting workers go, many employers are letting job-turnover effect the reductions.

⁵ Quoted by Robert Bendiner in *The Reporter*, April 7, 1955.

True, when the employer lets attrition or turnover handle the reduction in the work force, he does not then have to look into the eyes of a worker he has set adrift and plunged in despair. But what of the worker who comes to the employment window and who is told there is nothing for him? For, in this case, the worker displaced is the worker *not hired*. And when we consider the interests of the working class, it adds up to the same thing—more misery, more insecurity.

THE WORKING POPULATION

4. The argument that automation is necessary to compensate for the proportionately smaller work force that is anticipated in the years ahead, otherwise the standard of living will decline. Sample of the argument follows:

"The startling fact is that while our population grows in leaps and bounds, the working force of the nation is currently growing smaller in relation to the total. The age of retirement is decreasing while the average age at which people enter the work force is increasing. Moreover, the generation now coming of working age was born during the great depression and is smaller by far than the group below working age. Thus the pressure on the job market will be lessening during the next decade—the period when the great changes of automation will be made."—Mr. John Diebold, editorial director of Automatic Control, in a paper read before the National Conference on Automation, Washington, D.C., April 14, 1955. See The Challenge of Automation, Public Affairs Press, page 18.

It is astonishing how far the capitalists will go in consoling the workers whom they callously set adrift in pursuing their competitive, profit-making careers! But, like most of these capitalist "consolations," this one conveniently overlooks a factor that

largely cancels the factors noted by Mr. Diebold. It is the seemingly endless flood of women, especially married women, who are entering the labor market. The New York *Times*, Jan. 3, 1956, reporting on the record size of the labor force (over 70 million), said:

"One of the most significant social trends over the last 15 years has been the steady rise in the number and proportion of married women working outside the home.

"By April, 1955, close to 12,000,000 wives were working—about 30 per cent of all married women. This was twice the proportion in the job market before World War II.

"The growing tendency for married women to work has extended to those with young children . . . "

In any case, as we shall see, the living standards of the useful producers do not depend on the amount of wealth created—in the '30's millions of workers were on short-rations when the granaries were filled to overflowing and huge quantities of foodstuffs rotted or were destroyed.

THE CAPITALISTS' "CLINCHER"

5. The argument—the capitalists call it the "clincher"—that whatever the painful "temporary dislocations," in the long run automation means cheaper goods and more jobs: that's the way it's always been. Sample of the argument follows:

"The one striking thing they [newsmen at President Eisenhower's news conference] should remember was this: Exactly the same thing had been going on for 150 years; exactly the same fears had been expressed right along; and one of the great things that seemed to happen that, as we found ways of doing work with fewer man-hours devoted to it, then there was more work to do."—President Eisenhower as quoted indirectly

by the New York Times, March 17, 1955.

But automation isn't "exactly the same thing" that has been going on for 150 years. Such an attitude reveals a complete lack of understanding of the tremendous impact that automation has on this capitalist society. The speed with which automation is being applied and its scope are breathtaking. Equally breathtaking and terrifying in their social and economic implications are the speed with which, and extent to which, automation aggravates the problems and contradictions of capitalist society. Even the Congressional subcommittee acknowledged this. "... it is clearly wrong," the subcommittee said in its report, "to dismiss automation...as nothing more than an extension of mechanization. We are clearly on the threshold of an industrial age, the significance of which we cannot predict and with potentialities which we cannot fully appreciate."

One of the first to point up the potentialities of automation under capitalism was Dr. Norbert Wiener, of the Massachusetts Institute of Technology, who said in his book, *The Human Use of Human Beings*:

"Let us remember that the automatic machine...is the precise economic equivalent of slave labor. Any labor that competes with slave labor must accept the economic conditions of slave labor. It is perfectly clear that this will produce an unemployment situation in comparison with which...the depression of the '30's will seem a pleasant joke. This depression will ruin many industries—possibly even the industries that have taken advantage of the new potentialities."

Capitalism, being a system of commodity produc-

tion (production of things for sale), is dependent on markets, and the conditions today, marketwise, are vastly different than they were in the age of burgeoning capitalism. Two world wars in the twentieth century, both of which were basically wars for the world's markets and raw materials, are tragic evidence of the mounting economic crisis of capitalism. And now, at the very time when, as a result of automation, capitalism's capacity to produce commodities is being greatly increased, the markets of the world are shrinking rapidly.⁶ In effect, Soviet Russia (which is also making notable strides in applying automation⁷) has sealed off great areas of the world to capitalist trade. In addition, Soviet economic competition is reaching into the oil-rich Middle East, Afghanistan, Burma, India and Latin America. Meanwhile, some of the countries that were markets vesterday are themselves industrializing and are competitors today. And potent capitalist competitors of U.S. capitalism, especially Britain and West Germany, are themselves applying automation under the compelling pressure of competitive forces.

All these factors accelerate the crisis that has twice plunged mankind into global war.

The point that must be emphasized is that in-

 $^{^{6}}$ The effect of automation in aggravating inherent capitalist contradictions is discussed in Chapter IV.

⁷ Three U.S. engineers (Nevin L. Bean, of the Ford Motor Co., Dr. Albert C. Hall, of the Bendix Aviation Corp., and Welden H. Brandt, of Westinghouse Electric Corp.) visited Soviet plants in 1955 in an exchange agreement. On their return they praised Russian automation installations and the electronic computer they saw at the Institute of Precision Mechanics and Calculating Technology at Moscow. Mr. Bean reported "that the Russians were preparing themselves for a 'highly automated industrial era.'" (New York *Times*, Jan. 8, 1956.)

creased productivity under capitalism does not of itself mean higher living standards for workers. On the contrary, it may mean—and *does* mean under conditions of contracting markets—declining living standards, more insecurity, more misery. We Socialists are not the only ones who grasp this. Others, for example, those who study mental health, have seen through the pretentious claims of the capitalist apologists. One of these, Dr. Nathan E. Cohen, associate dean of the New York School of Social Work, Columbia University, told a meeting of the National Conference of Social Work:

"We are experiencing a technological revolution referred to frequently as automation. America is continuing to increase its productive capacity and the machine is continuing to replace the human...Man is more and more able to produce more in a shorter period of time but as yet does not have a greater guarantee of his share of the increased productivity.

"If anything, the increased productivity without a planning concept for its consumption makes his economic position more hazardous, his insecurities greater and his increased leisure time a threat rather than a blessing."—The New York *Times*, May 31, 1955.

We have seen what technology has done in agriculture. It has increased the productivity of labor many times and brought about a corresponding reduction of the farm population. But the increased yield, instead of being a blessing, has become a burden on the economy. As a result of these surpluses the whole agricultural industry is in a state of chronic crisis.

The situation in agriculture is conclusive proof that mere productivity—in the capitalist premises—can lead, not to more jobs, but to economic

stagnation and collapse. In other words, the capitalists' "clincher" argument that automation will, in the long run, create more jobs by producing goods more cheaply is wishful, and clinches nothing.

PIE-IN-THE-SKY ARGUMENT

6. The argument that workers displaced by automation will be absorbed in retailing, entertainment, vacation resorts, cultural activities, athletics, etc.

If ever there was a pie-in-the-sky argument this is it! It is unrealistic and is obviously conceived to soothe the workers and allay their alarm. Mr. Benjamin Fairless goes so far in pursuing this line as to comfort workers with the reflection that in the capitalist "fairyland of the future" (to borrow the NAM's description) people will "send out more of their laundry" and "eat more often in restaurants"—and presumably the laundries and restaurants will hire more displaced factory and office workers!

Even if we were to assume that capitalism was not heading into an economic crisis, how could we overlook the mechanization that is even now going on in the distribution, travel and service industries? Railroads are constantly expanding traffic with fewer and fewer workers. (*Vide* the new automated classification freight yards that most of the leading railroads are either building or planning to build, not to mention the "driverless" train tested by the New Haven R.R., December, 1955.) Mechanization is making important strides in laundries and similar service industries. Retail distribution is being rapidly rationalized—a fact that is reflected in the mounting failures among retail establishments. Indeed, labor saving is going on in all branches of capitalist enterprise, all under the compulsion of competition and the capitalists' insatiable hunger for profit.

Actually, as *Business Week* has confessed, the capitalists haven't begun to find the answer. In a special issue devoted to automation, Oct. 1, 1955, *Business Week* said:

"The challenge for automation thus is to find employment for the people who will not be hired in dying specialties. Ultimately, it's in industries not yet born that the job future lies. But it's impossible to tell exactly what new frontiers science will crack to produce these jobs."

It is on this long-shot gamble that the capitalists, eager to get on with the job of "cutting costs" blithely base their case.

"UPGRADING" JOBS AND "DOWNGRADING" LABOR

7. The argument that one of the blessings of automation is that it "upgrades" the workers.

In the Public Affairs Press pamphlet, *Automation: A New Dimension to Old Problems*, Professors Schultz and Baldwin give the lie to this false claim, saying simply, "Automation will not upgrade people; it will only upgrade jobs." They illustrate the point as follows:

"If John Romano, a 55-year-old grinder in Ford's crankshaft department, is thrown out of work by the introduction of an automated crankshaft machine, and George Pichelski's 20year-old boy decides to go to a school for electronic technicians

instead of going to work as a drill press operator (and does in fact land a technician's job two years later at Chrysler), it is stretching language and compressing reality to say that a semiskilled operator has been upgraded into a highly skilled technician."

Actually, the jobs of the old production workers (who are not necessarily old in years) are eliminated and they stand very little chance of getting any of the automation jobs. These workers are thrown on the industrial scrap heap while the capitalists proceed to give the relatively few remaining automation jobs to younger and specially trained workers. For the changes brought about by automation make the hiring and training of a new and younger work force much more practical and profitable for the capitalists.

Under the old production system a skilled worker and, possibly, a semiskilled assistant, handles material that is being shaped, drilled, milled or machined, and when the drilling, milling, or machining is completed, the material is moved on to another machine operator. But the task the new technology takes over most readily is materialshandling, and machines run the machines. Thus, under automation a technician and his team concentrate on *coordination of a machine complex*. It is this coordination that counts now, and if there is any work to do other than that of watching panels of lights, it is work of adjusting integrated machines, and replacing worn-out tools and tubes, and to make repairs quickly so as to minimize expensive shutdown time. The drilling, milling, shaping, etc., are now directed by an electronic brain, which also inspects, rejects and conveys the material from

one operation to the next.

Here is a brand-new concept of labor and one not easy for the worker, habituated to the old concept of working on materials, to adjust to. His handicap has been compared to that of the World War I aviator, who flew "by the seat of his pants," if he were put into the pilot's seat of a huge, instrumentalized jet bomber.

In some cases workers, whose jobs are wiped out by automation, may be offered jobs that represent a demotion. Such a demotion means more than less pay and a blow to their living standards. It is often a crushing blow to pride, especially in cases where men have spent long years perfecting skills now rendered useless. The bitterness of men thus demoted is one of the reasons why employers are anxious to renegotiate seniority rules with the unions that will enable them to get such workers off the pay roll.

AUTOMATION AND WAGES

8. The argument that automation means higher wages.

There is no more insidious falsehood than the half-truth. The present argument is just that—a half-truth. For, no one will deny that the workers who get the technical and maintenance jobs in automated industries will receive higher pay than the semiskilled workers automation has displaced. The reason for this is implicit in the commodity status of labor power. The prices of commodities rise and fall according to supply and demand. If

demand exceeds supply the price goes up, and *vice versa*, if supply exceeds demand the price goes down.

Obviously, for the present and for a few years to come, the demand for technically trained workers to run the automated industries will exceed the supply. But such workers will be in the minority. What about the mass of unskilled and semiskilled labor now greatly augmented by the millions displaced by automation? To use the commodity jargon of capitalism, they will be "in surplus." Accordingly, the price of such labor will fall.

Moreover, it should be noted that the intense interest now being manifested by the giant corporations in "education" is directed in large measure toward increasing the supply of technically trained workers. Sooner or later the supply of such labor *will* increase, and when it does the price will come down. It is with technicians as it is with oysters, cheese, eggs or any other commodity.

WHO'S AGAINST PROGRESS?

9. The argument that those who reject the capitalists' soothing-syrup lies and deceptions are against automation, and therefore against progress.

Thus General Electric, in its *Employee Relations News Letter*, April 8, 1955, spoke contemptuously of "the gloomiest detractors of automation" in referring to those who anticipate dire consequences to the workers.

The charge, when leveled at Socialists, is an utterly baseless one. But it is understandable that the capitalists should make it. They simply cannot conceive of the employment of automation technology except by capital, hence to them criticism of *the capitalist use of automation* is criticism of *automation*. Socialists, of course, welcome automation as a harbinger of plenty, but criticize its exploitation by the capitalists.

Similar charges—of being "against progress"—were leveled against Socialists of a century ago who exposed the terrible consequences of machinery in capitalist industry. Marx dealt with these charges briefly and wittily in *Capital*, saying:

"Whoever . . . exposes the real state of things in the capitalistic employment of machinery, is against its employment in any way, and is an enemy of social progress! Exactly the reasoning of the celebrated Bill Sykes [a character in Charles Dickens's *Oliver Twist*] 'Gentlemen of the jury, no doubt the throat of this commercial traveler has been cut. But that is not my fault; it is the fault of the knife. Must we for such a temporary inconvenience abolish the use of the knife? Only consider! Where would agriculture and trade be without the knife? Is it not as salutary in surgery as it is knowing in anatomy? And in addition a willing help at the festive board? If you abolish the knife—you hurl us back into the depths of barbarism.'"—Chapter XV, "Machinery and Modern Industry.""

This will suffice to refute the slur that Socialists oppose progress. It is the capitalist class, desperately determined to preserve its property and privilege—and the outmoded capitalist system—that obstruct *social* progress. Which is to say, capitalism and its supporters obstruct the only kind of progress that will enable the useful producers to gain a mastery over the tools they operate and control of their collective product.

3. The Proof of the Pudding

BEYOND QUESTION, automation is going to have seriously adverse effects on the workers as a class. The most disastrous will be their elimination by the millions from an automated capitalist economy.

In the capitalist book no term is worshiped more than the term "labor saving." From the view of capitalist interests this worship is logical. As Sewell L. Avery, former head of Montgomery Ward, once explained: "A corporation's efficiency is indicated by the number of men it can release from a job, not by the number of men hired."⁸ He is right! It is the ability of a capitalist concern to cut down the number of workers employed to produce a given output which chiefly determines its competitive and profit-making powers.

Thus the urge to reduce further and further the labor time consumed in production has always been the main drive behind capitalist technological improvements. Today that same unrelenting urge is behind the wide and rapid promotion of automation. But the aim today is far bolder than anything undertaken before: nothing less than the maximum elimination of human labor from industry. And this aim of automation is on the way to being achieved!

"In Michigan automobile factories, Illinois railroad yards, Pennsylvania oil refineries and New York brokerage offices, a new kind of industrial magic is making old operating methods

⁸ Chicago Sun, March 2, 1944.

look like slow motion. Its name is automation, and its ability to edit man out of the productive process is an awesome thing to watch, whether the proving ground is an insurance company's record-stuffed headquarters on Madison Avenue or the mighty River Rouge plant of the Ford Motor Company, cradle of mass production."—A.H. Raskin, *New York Times Magazine*, Dec. 18, 1955.

THE CONSEQUENCES CONCEALED

For several reasons we are not able to attempt anything like an accurate accounting of the extent of labor displacement by automation so far. One big reason is the canny reluctance of capitalist employers to disclose such information. Another is the lack of a systematic exchange of data regarding automation developments.

"There is no central clearinghouse for information on how machines are taking over the direction of machines from the men who made them and told them how to operate. There is no exchange of data on a regular basis. There is nothing but advance—so rapid as to stagger the imagination of those who study the new science of automatic controls." —W.H. Freeman, New York *Times*, Jan. 3, 1956.

Though it is not possible to present a full picture of how efficiently automation is "editing" large amounts of human labor out of capitalist industry, we can cite a few examples which convey a fair idea of the trend:

Steel industry. Between January, 1954, and January, 1955, newer automatic equipment allowed 42,000 fewer steel workers to turn out an 11 per cent greater quantity of ingots.⁹

Oil refining industry. This increasingly auto-

⁹ Wall Street Journal, March 17, 1955.

matic industry has, since 1948, reduced employment from 147,000 to 137,000, while at the same time boosting refinery production by 22 per cent.¹⁰

Communications industry. Called a "proving ground for automation," the telephone industry has scored striking productivity gains: In 1946, there were 51.8 telephone stations per worker employed and 213 average daily telephone conversations. In 1954, there were 73.7 stations per worker and 271.5 average daily conversations. Thus, in 1954 the Bell Telephone System had a net gain of 1,400,000 telephones against 17,500 fewer employees. (The telephone industry is still only 83 per cent automated. It expects to be 95 per cent automatic by 1965.)¹¹

Electric power industry. Since 1930, the amount of electric power generated in the U.S. has been multiplied almost five times with only a 15 per cent addition to the industry's work force.¹²

Electrical equipment industry. Production in the electronics branch of this industry went up 275 per cent between 1947 and 1952 with only 40 per cent more workers.¹³ An inkling of the productivity rise after 1952 is given by a *Wall Street Journal* report on a device called "Autofab," perfected by General Mills Corporation to produce by automation the automatic equipment needed for making consumer

¹⁰ Walter S. Buckingham Jr., associate professor of the Georgia Institute of Technology, in a paper delivered at the National Conference on Automation. See *The Challenge of Automation*, Public Affairs Press, Washington, D.C., page 41.

¹¹ Joseph A. Beirne, president of the Communication Workers of America. See *The Challenge of Automation*, pages 69-70.

¹² Wall Street Journal, Feb. 1, 1954.

 $^{^{13}}$ Walter P. Reuther, president of the United Auto Workers. See *The Challenge of Automation*, page 48.

goods. "Autofab," we are told, "will assemble in a little more than a minute the same number of multiple-part electronic units that it now takes a worker a full day to assemble." The mechanism requires only two workers and a supervisor, and has a capacity of 200,000 assemblies a month.¹⁴

THE SHAPE OF THINGS TO COME

A glimpse of the future is given by the magazine, Automatic Control, a specialist publication established to observe and report on the progress of automation. Automatic Control has estimated that, if automation could reach its fullest application in the electrical industry, the displacement of workers could climb to the order of 100 let out for each one left in!¹⁵

Even if the foregoing estimate might prove to be considerably exaggerated, it is none the less a blood-freezing presage of calamity ahead for the electrical workers—and likewise for their class brothers in other industries, because, as we have previously noted, automation is forging forward on many fronts. In the auto industry, for instance, it has supplied Chrysler Corporation with an automatic engine assembly mechanism that enables 150 workers to assemble 150 Plymouth V-8 engines an hour—some 50 workers less than were formerly required to equal this output.¹⁶

The aircraft industry has acquired a giant hy-

¹⁴ James B. Carey, president of the International Union of Electrical, Radio and Machine Workers. See *The Challenge of Automation*, pages 64-65.

¹⁵ Ibid.

¹⁶ New York *Times*, Nov. 1955.

draulic press capable of exerting a pressure of 106 million pounds. "This triumph of automation," said the *New York Times Magazine*, Jan. 8, 1956, "is operated by one man. Its function is to press heated aluminum billets into structural parts that formerly took thousands of man-hours, more metal, and many parts to build. The result is a lighter but much stronger frame [for America's latest military jet planes]." The die bed of this monster press can hold a forging 32 feet long.

The railroads are in the running, too. Their particular automation goal at present is the construction of push button freight classification yards. ("Classification" means the necessary redistribution of freight cars into new trains as they move from their points of origin toward their destinations.) At Hamlet, North Carolina, a Seaboard Airline Railroad yard of the new automated type permits the classification of more freight cars in eight hours than could formerly be passed through in 24 hours. And this with 35 per cent fewer yardmen.¹⁷

In chemicals, in banking and in insurance, all along the line, the story is essentially similar: automation devices are being installed to render unnecessary the labor of large bodies of workers.

BOOM CONCEALS EXTENT OF JOB DESTRUCTION

Why aren't the inroads of automation manifesting themselves, as yet, in sharply mounting unemployment? The principal explanation is that the introduction of the new technology is proceeding dur-

¹⁷ New York *Times*, Dec. 11, 1955.

ing the greatest "peacetime" boom capitalism has ever experienced, a boom which has been pushing employment to record levels despite the rising job destruction resulting from automation.

When the depression that is in the capitalist cards arrives—possibly sooner, because of automation's fantastic "ability to edit man out of the productive process"-the workers will be suddenly confronted with a staggering loss of jobs. This is the plain indication of the labor savings obtained from those applications of automation that we have cited earlier. It is the plain indication of every report on automation that comes to our notice. And it is the plain indication of government statistics which reveal that American manufacturing industries turned out as much in 1954 as they did in 1953 with nearly a million fewer workers; and that the average factory output for each man-hour of human labor was seven per cent higher in February, 1955, than in February, 1954."18

We may anticipate that all sorts of dodges will be employed to conceal and de-emphasize the true extent and tragedy of approaching unemployment. Among them will be: More compulsory "retirements" of still able workers. "Planned" postponement of the entrance of the young into economic life. Discounting of young women as members of the labor force. ("Most of them only work, anyway, while waiting to marry," is an argument we'll he hearing.) Concealment of the unemployment increases which result when jobs vacated through "normal labor attrition and turnover" are left un-

¹⁸ A.H. Raskin, New York *Times*, April 8, 1955.

filled (" . . . the worker displaced is the one not hired"). $^{19}\,$

But all the falsifications capitalist economists and statisticians can contrive will not mitigate in the least the terrible tragedy that automation technology, *under capitalist control*, will inflict on millions of workers and their families. Large masses of capable and willing producers will find themselves despotically banished from the nation's economic and socially useful life. The only historic parallel to the fate awaiting them, of which we can think, is the abysmal misery that descended on the Roman proletarians as swarms of slaves crowded them out of ancient Rome's economy. It is noteworthy that Norbert Wiener, a leading authority on automation, sees in automatic machines "the precise economic equivalent of slave labor."²⁰

¹⁹ Business Week, Oct. 1, 1955.

²⁰ The Human Use of Human Beings.

4. Economic Change and Capitalist Contradictions

WORKERS WILL BE gravely injured by other effects of automation developing within the capitalist framework—such effects as distressing changes in the national economy; the aggravation of capitalism's problem of selling its full output; an increase of international frictions.

DECENTRALIZATION OF INDUSTRY

The first of these effects we propose to discuss here is automation's influence on the movement to decentralize industry by shifting it from large cities and areas of dense concentration to small towns and semi-rural areas.

This movement is not of recent origin, nor is it prompted by automation alone. Many considerations, military as well as economic, have long been clamoring for a reversal of the traditional capitalist trend to centralize production in industrial complexes like the Pittsburgh and Detroit regions.

Decentralization of industry began to gain way during World War II and has been very noticeably accelerating in the postwar years, so much so that the phenomenon is commanding the close attention of capitalist observers. *Business Week*, Aug. 13, 1955, carried a special report on the subject, the conclusion of which was that "... one thing is clear: Industrial migration is going to continue relentlessly to change the industrial map of the U.S." The report detailed the exodus of industry from the New England and Middle Atlantic states to the South, Southwest and West.

Automation is giving impetus to industrial migration because it overcomes two deterrents that had been impeding decentralization—namely, the need to stay near large pools of labor and the natural reluctance of capitalists to abandon highly valuable and still serviceable plants in the older industrial regions.

As to the first, it suffices to underscore again that automation technology considerably reduces capitalist employment of workers. "Since automatic equipment requires little direct labor, there will no longer be any compelling need to locate automatic production plants near large population centers."²¹

As to the second, automation's super-efficiency and the goad of competition are joining to hasten or force the obsolescence of much plant and equipment. "... on the whole it is much more economic good sense to build a new plant in which to place an automated line than to try to adapt that line to an existing facility."²² And in fact: "Many of our plants and processes are so outmoded that automatic controls cannot be installed on them."²³

Accordingly, "there is an increased likelihood of abandonment of plants and the creation of depressed areas. If one large firm adopts automatic operations other firms in the industry may have to scrap or sell undepreciated machinery and adopt

²¹ Walter S. Buckingham Jr. (See *The Challenge of Automation*, page 37.)

²² Walter P. Reuther. (Ibid.)

²³ Donald P. Campbell. (Ibid.)

similar techniques or be squeezed out of the industry by the lower costs of their automatized rivals.

"Entire communities could become ghost towns if this happened . . . "²⁴

There are no "ifs" about this! "Ghost towns," "depressed areas," "pockets of chronic unemployment," etc., are sure to become widely familiar features of the capitalist future. No sense of "social responsibility," no qualms over what happens to the legions of workers left marooned by migrating industries, restrains capitalists from heeding the profit incentives that urge migration and decentralization.

Deserted industrial centers will inevitably become vast reservoirs of human misery. Of the workers whom automation and the removal of industry have rendered "surplus," the older ones-those who usually have the heaviest family responsibilities—will be the hardest hit. For them it will be the most difficult to undergo the expensive technical retraining and to make the long journeys that might enable them to catch up with an automated and departed industry. Not that their younger fellow-victims will be much better off. The harsh truth which young and old alike will have to face is that—no matter what success individuals may experience in coping with automation and decentralization-for the greater number of stranded workers there will be no place left to go in a capitalist economy where automation is rapidly taking over.

Doubtless the capitalist class and its political State will see the necessity of alleviating the abject

²⁴ Walter S. Buckingham Jr. (Ibid.)

misery of jobless multitudes via a systematic dole and made-work on the WPA model. But let us reaffirm the solemn warning that workers will accept "remedies" of that sort at the terrible price of being degraded to a class of paupers whose moral backbone has been broken.

CONCENTRATION OF CAPITAL AND PRODUCTION

A second movement receiving fresh impulse from the spread of automation is the historic tendency of capital ownership and production to concentrate in fewer hands.

(At first glance this movement may appear to oppose the trend to decentralize. Actually, there is no conflict between the two. In reality they go hand in hand: Decentralization of industry on the more or less rational plan being presently followed cannot start until ownership and production are centralized or concentrated in a few industrial giants. And once decentralization of industry does start, it stimulates further concentration of industrial ownership due to the competitive advantages it affords-advantages, for example, accruing from the location of plants near an industry's markets and at points where there is easy access to cheap power, abundant raw materials, and "plenty of labor at a price industry likes." [Business Week, Aug. 13, 1955.1

(Ford, General Motors and International Business Machines offer good illustrations of decentralization being realized via capital concentration and then leading to yet more concentration.)

The fact that capital and production steadily con-

centrate is demonstrated when one reviews the growth of America's industries, especially from the Civil War onward.

The cause of this process of concentration was revealed by Karl Marx. By searching analysis of how the capitalist system operates, Marx has shown that a factor termed the *law of value* is the prime force propelling the concentration of capital.

What is the *law of value*? It is simply the scientific formulation of a cardinal truth concerning the circulation of commodities. (Commodities are useful things produced to be sold in the market. Capitalism is based on the production and exchange of commodities.)

What does the *law of value* tell us? The brilliantly illuminating truth that the exchange *value* of any commodity is determined by the amount of labor time socially required for its production. (The *price* of a commodity is the monetary expression of its *value*.)

Does, though, the *law of value* govern by itself? No. It enforces its sway through another dominant law of capitalist existence: Competition, which decrees that he who can sell the best article at the lowest price will overcome his rivals and capture the market.

"The battle of competition," Marx wrote in *Capital*, "is fought by cheapening of commodities."²⁵ But the ability to cheapen and undersell depends critically on the relative size of the competitor. "The cheapness of commodities depends, other things being equal, on the productiveness of labor, and

²⁵ Capital, Chapter XXV, "The General Law of Capitalist Accumulation."

this again on the scale of production. Therefore the larger capitals beat the smaller."²⁶

Of course, "smaller" does not necessarily mean *small* capital in the literal sense; only small compared to the larger capitals in the industry. Almost a century ago Marx observed that: "... with the development of the capitalist mode of production there is an increase in the minimum amount of individual capital necessary to carry on a business under its normal conditions."²⁷ Today the minimum amount of individual capital necessary may equal hundreds of millions, sometimes billions!—and an immense enterprise like the Chrysler Corporation may find itself perilously "small" to withstand the competition of the Ford and GM leviathans.

The reason for the enormous increase in the capital necessary for competitive survival is the steeply ascending cost of keeping abreast of technological improvements. With the advent of automation, this cost and the total capital required to stay in business have truly begun to soar.

Although limited use of automation techniques may be made in smaller industries, the new technology is pre-eminently suited to mass production on the very largest scale. Its most efficient employment in specific places may demand the incorporation of automation in monster machines that cannot be utilized except in a productive facility of massive proportions. The prices of these huge automatic tools often run into millions of dollars.

²⁶ Ibid.

²⁷ Ibid.

Added to this is the expense in many cases of building entirely new plants to house the automatic equipment.

Obviously, by virtue of the stiff outlays it necessitates, automation is going to strengthen the competitive position of the biggest and most powerful capitalist concerns. Since, moreover, automation brings unprecedented efficiency advantages, it is sure to work ruin on those companies financially incapable of installing it. In the blunt language of a Chrysler executive previously cited: "The economics of automation are harsh but simple; automate or die."

MERGING TO SURVIVE

A major maneuver in the war of capitalist competition is the merger of two or more companies. Mergers confer several competitive benefits: They are a means of achieving expansion of the scale of production. Their combined capitals permit the purchase of improved tools. There is elimination of duplication in facilities and personnel. In these various ways much labor can be eliminated from the merged operations.

The incidence of mergers has been conspicuously rising during recent years. "The wave of mergers," the New York *Times* stated Oct. 30, 1954, "is now more like a floodtide, so wide and pervasive has it become."

Mergers in the automotive industry illustrate the trend. Two of the "Big Three"—General Motors and Chrysler—got up there via the merger route. Since 1954, the "independents" in fourth and fifth posi-

tions have contracted mergers in a desperate bid to avoid following a host of onetime motorcar manufacturers to the wall. Even after the mergers, these tail-enders—American Motors and Studebaker-Packard—are still outdistanced by their giant adversaries in the race to produce cars more cheaply by use of automation and other labor-saving means. To compensate, they are bearing down harder on their workers to get higher productivity.

The pattern is repeated throughout the economy. Mergers arranged to escape extinction in the war of competition intensify concentration. Automation is supplying a great deal more steam to this movement.

MERGERS AND DIVERSIFICATION

Not every merger is motivated by the pressure of competition. Many result from a pursuit of "diversification." Diversification describes the widening of a corporation's line of products. Originally its main motive was a desire to insure profits against seasonal and cyclical fluctuations in business, particularly the latter. "Don't put all the company's profit hopes in one basket," expresses the object of this policy.

The effort of corporations to produce a variety of products is growing into a mighty trend. "The urge to diversify has pervaded almost every industry," related the New York *Times*, Aug. 8, 1955. "The roads to diversification are many," continued the *Times*. "A merger of two equals is one route. Some concerns have reached the goal by a systematic program of buying smaller concerns for cash or stock. Still others add gradually to an original product line and achieve much the same result."

Impelled by the profit motive in capitalist production, the capitalist strives to keep his industry running full time. Producing as many different commodities as possible helps him in his efforts to reach this goal. Automation makes it even more imperative that he strive to reach this goal. For automation dearly penalizes so-called "down time"; i.e., time during which production equipment stands idle. The penalty is exacted on three counts: First, the nature of automatic plants raises the cost of maintaining them, whether they are operating or not. Second, the velocity of technological progress is obsolescing automation installations at a pace that appalls capitalists who have no choice but to invest in them. Third, the stupendous investments put into automation must more than ever be unremitting in providing profits. Nothing is more unbearable to capitalists than that their capital should not be constantly extracting surplus value²⁸ from labor's productive efforts.²⁹

Clearly, therefore, capitalist owners of automatic plants are constrained to keep them running with as little interruption as possible. When the production of a single product (or a limited line) will not

 $^{^{28}}$ "Surplus value" is the name Karl Marx gave to the value created by labor over and above the value represented by wages.

 $^{^{29}}$ "Constant capital, the means of production, considered from the standpoint of the creation of surplus value, only exist to absorb labor, and with every drop of labor a proportional quantity of surplus labor. While they fail to do this, their mere existence causes a relative loss to the capitalists, for they represent, during the time they lie fallow, a useless advance of capital. . . . To appropriate labor during all the 24 hours of the day is, therefore, the inherent tendency of capitalist production . . ."—Karl Marx in *Capital*.

allow them to do this, diversification may. The designers and builders of automatic machinery may be relied on to exert every effort to make possible the attainment of this kind of diversification because it gives their wares greater sales appeal.

Furthermore, it must be noted that concentrating the production of many commodities in a few versatile automated industries will also bring a further concentration of industrial ownership either through the acquisition or the liquidation of the firms whose products are taken over. Needless to say, all this will spell additional job destruction.

Before proceeding, let us ponder the somber fact that increasing concentration of capital signifies a growing economic despotism, and that this economic despotism must sooner or later impose a political despotism on the nation.

AGGRAVATION OF CAPITALISM'S MARKET PROBLEM

Because automation both directly and indirectly raises labor's productivity sharply, it aggravates the central contradiction of capitalism, which is the system's tendency to produce more than its market can profitably absorb.

This tendency is inherent in capitalism and began to evidence itself long ago. Marx and his collaborator, Frederick Engels, gave it public notice back in 1848. Commenting on "... the commercial crises that by their periodical return put on its trial, each time more threateningly, the existence of the bourgeois society," they observed: "In these crises there breaks out an epidemic that, in all earlier epochs, would have seemed an absurdity—the epidemic of overproduction." (Communist Manifesto—Marx and Engels, 1848.)

Thanks to Marx's profound economic researches, we know that these absurd "epidemics of overproduction" are an inevitable result of the exploitation of wage labor on which capitalism is based. Marx revealed it to be the essence of the relations between capitalist employers and wage workers that the latter should receive for their productive labors only a fraction of the value of their products. He also revealed that increases in the productivity of labor caused corresponding reductions in this fraction returned to the workers.

Consequently, the capitalist technological revolution has progressively widened the spread between the value of labor's collective product on the one hand, and the purchasing power of the workers' total wages on the other. And the greatest spread ever—the greatest potential surplus of commodities ever—lies ahead in the age of automation!

There is recognition of this prospect in capitalist quarters and it is exciting ill-concealed gloom and alarm. An example is found in an article on the mounting productivity of U.S. labor, in *Fortune* magazine, November, 1955. After attempting estimates of future productivity increases, *Fortune* lamented that "the time may be imminent... when the nation's great economic problem will be how to avoid intolerable surfeit—and not just in farm products."

FIERCER STRUGGLE FOR WORLD MARKETS

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Mass unemployment is not the sole threat to the

workers' well-being posed by the impending glut of the home market. They have likewise to fear a sharpening of international rivalry for overseas markets, and especially of the mortal struggle between the Russian and American imperialisms.

The vigor and scope of Russia's foreign trade drive are impressive testimony that American capitalism confronts a formidable commercial foe; while at the same time it exposes to plain view the real character of the conflict between the two imperial colossi.

In this international contest, also, automation is exerting a compulsive pressure on the contenders. For the new technology is a decisive weapon in imperialist competition, too! The more a nation develops automation, the more it adds to its military as well as economic muscle.

The ruling Soviet bureaucrats are keenly alive to this, therefore automation research and application are being energetically pushed in their empire. "A study of foreign machinery and technology is being intensively pursued in almost every Soviet industrial administration." (New York *Times*, Dec. 25, 1955.)

How seriously Soviet Russia is pressing the development of automation is evidenced by the fact that it has set up a special Ministry of Automation.

It is a bitter reflection that marvelous laborsaving mechanisms being devised on both sides will benefit neither our Russian working-class brothers nor us. Instead, they will be devoted exclusively to the aggrandizement of our respective rulers, to imperialist competition, and to preparations for imperialist war.

Summing up the discussion in this chapter: Automation will give impetus to decentralization of industry and concentration of production, each of which leads to job destruction. These, in turn, will combine with automation to aggravate the central contradiction of capitalism: its inherent tendency to produce an "intolerable surfeit" of unsalable commodities—which, again, leads to snow-balling unemployment and economic breakdown. Finally, the imperative capitalist need to forestall or moderate a depression by disposing of surplus products overseas intensifies international strife over markets until it erupts in war.

Damning proof, we think, that capitalistcontrolled automation is baneful to the workers' welfare no matter how you look at it.

5. What Are the Unions Doing?

MANY WORKERS are turning to their unions for an answer to the threat posed by automation. They might just as well turn to the cop on the corner, or to a lamp post! For the only "answer" they get from the unions, which is to say, from the labor bureaucrats who run the unions, is a lot of diversionary double-talk about the "guaranteed annual wage," "separation pay," "training and retraining at employer expense," and "broader seniority"—demands, in short, that divert the workers' thoughts from the basic problem of their class.

This basic problem existed before automation. It is inherent in the capitalist system and stems from the fact that one class, the capitalists, own all the means of social production, while another class, the workers, whose labor creates all social values, is propertiless. Karl Marx is often accused of inventing the class struggle. This is absurd. Marx no more invented the class struggle than Columbus invented America. He discovered the modern class struggle and revealed its historic implications. He showed that the focal point of this struggle is the division of labor's product. On the one hand, the workers, driven sometimes by naked necessity, sometimes by hunger for a better life, struggle to increase their share; on the other hand, the capitalists, acting under the compulsion of *their* material interests, resist labor's demands and by various means-the speedup, wage-cutting, improved technology, etc.-seek to increase the part of labor's

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product (surplus value) that they appropriate.

Despite efforts by the capitalists, their apologists, and their labor lieutenants, the class struggle manifests itself again and again. It is enough here to point to the strikes that break out endlessly, sometimes in epidemic numbers. They are the smoke that betrays the smoldering fire of the irrepressible, irreconcilable class struggle.

Indeed, the lies and soothing syrup now being ladled out to the workers are but weapons in the cold war capital wages incessantly against labor. For the capitalists know full well, as foregoing documented testimony conclusively proves, that automation will increase enormously their dominion over labor. In the words of Daniel De Leon, the foremost Marxist of the twentieth century:

"Given the private ownership of the combined elements of production, and the capitalist class will congest ever more into its own hands the wealth of the land, while the working class must sink to ever deeper depths of poverty and dependence, every mechanical [labor-displacing] improvement only giving fresh impetus to the exultation of the capitalist and to the degradation of the workingman. The issue between the two classes is one of life and death; there are no two sides to it; there is no compromise possible."

Here the basic problem confronting the working class³⁰ is projected sharply on history's screen. If the working class is not to be degraded utterly the class struggle must be terminated; it must be terminated in the only way it can be, i.e., by abolishing private ownership of the land and industry. The

 $^{^{30}}$ By "working class" we mean all who must sell their labor power in order to live whether they be factory workers or stenographers, truck drivers or teachers, trackwalkers or technicians.

solution, made terribly urgent by the swift spread of automation, is to make the socially operated means of wealth production the collective property of society, to be run democratically by the workers for the benefit of all the people.

HOW LABOR FAKERS VIEW AUTOMATION

Now here is a significant thing. Although many labor leaders—men like Walter Reuther, James B. Carey, Joseph A. Beirne, *et al.*—"view with alarm" the threat to workers' jobs, not one of them faces up to the basic problem of the working class. On the contrary, *all* of them without exception echo the capitalist-conceived contention that *in the long run* automation will be a great boon to the workers. Indeed, the capitalists bank on the cooperation of union leaders in diverting the rank and file from the real problem and its logical solution.

Typical of the song and dance of the labor fakers—performed for the benefit of union members—is that of Lee W. Minton, president of the AFL-CIO Glass Blowers Association, in *Glass Horizons*, reprinted in the *AFL News-Reporter*, May 27, 1955. His premise, like that of all union leaders, is that there is a "community of interest between capital and labor," and that the very capitalists who install automation in order to eliminate labor will concern themselves over the welfare of the workers thus eliminated! As Minton puts it:

"Labor and management [the capitalists] must work together to find a mutually acceptable solution to the greatest danger ever faced by the American economic system." Minton advances several "solutions," the leading ones being (a) a shorter work week and (b) "a guaranteed annual wage which will help union men and women displaced from jobs ride through temporary unemployment until new jobs are found."

As for the shorter work week, this may have had some superficial logic before the automation age; it is absurdly inadequate in the face of the present threat of wholesale displacement. Proof of its inadequacy is supplied by the coal-mining industry, which has shorter hours, but in which continuous coal-mining machines and other technological advances have eliminated 40 per cent of the 450,000 bituminous miners employed in the mines in 1947.

As for GAW helping displaced workers "ride through temporary unemployment until new jobs are found," this fatuously assumes that new jobs will be available. But the real threat of automation, as the facts adduced in the foregoing chapters conclusively prove, is that it cuts a wide swath in the total jobs. The assumption, therefore, is baseless.

Labor lieutenant Minton winds up his piece with more foolishness. He says:

"Labor is not afraid of automation [oh, no!]. You can turn out more and better products with machines, but the machines will never go into a store and make a purchase."

So what? Will this pearl of wisdom deter a single capitalist from installing automation and displacing workers? Obviously not. And the reason is simply that, whatever the capitalists' concern for customers, they are under the compulsion of competitive forces constantly to cheapen their products by reducing the labor required to produce them.

Historically, the policy of the unions was one of denying the capitalist complaint that they were "against progress," while simultaneously resisting "labor-saving" machines either directly or indirectly. With few exceptions³¹ this policy prevailed until 1948 when the United Auto Workers signed an agreement with General Motors that for the first time provided for an "improvement factor" pay boost. In effect, this gave GM a green light to launch a billion-dollar automation program with complete assurance that the union itself would see to it that there would be no resistance from the rank and file. The price was cheap—an annual "automatic" three-cents-an-hour pay raise.

In 1950 the pact was amended and renewed for five years, and the "improvement-factor" pay boost was raised to four cents. It is significant that the shrewd idea of "letting the worker share in the fruits of the machine" originated not with the union, but with the corporation, and specifically in the fertile mind of Charles E. Wilson, then president of GM. Later, in a speech to the National Press Club in Washington, D.C., Mr. Wilson stressed the fact that this was an "entirely different kind" of agreement, and that it meant the union's complete acceptance of "technological progress," and a rejection of "the erroneous idea that machines take the bread out of the workmen's mouths." (New York *Times*,

³¹ One of the exceptions is John L. Lewis, the absolute boss of the United Mine Workers of America. In his book, *The Miners Fight for American Standards*, published in 1927, Lewis said: "The policy of the UMWA will inevitably bring about the utmost employment of machinery of which coal mining is physically capable."

June 9, 1950.) Then, with the smirking exultation of a man who has put over a crafty deal, he added:

"As far as I know, this is the first time a large union definitely came out on the right side of progress in the use of tools and so forth, and the boys [Walter Reuther and other UAW leaders] deserve a lot of credit."

The reason for Mr. Wilson's exultation has since become painfully apparent to job-jittery auto workers, most of whom now realize that by granting an annual "improvement factor" pay boost GM made a spectacular bargain. In one year alone (1950) said the Minneapolis *Sunday Tribune* editorially, April 29, 1951, "productivity per GM worker . . . rose by a whopping 20¹/4 per cent." Soaring productivity was reflected logically in soaring profits, climaxed by GM's record-breaking 1955 profits after taxes of \$1,189,000,000. In a gross understatement, Mr. Wilson's successor as head of GM, Harlow H. Curtice, observed: "That it [the five-year UAW pact] has fulfilled the promise held for it is now a matter of record." (New York *Times*, Feb. 26, 1955.)

HOW "GAW" ACCELERATED AUTOMATION

As noted above, the labor fakers are trying to divert the workers with a variety of demands that, at best, cushion the shock for the workers who are directly hurt. Of these demands, the one to which many union leaders appear to attach the greatest importance is the so-called "guaranteed annual wage." "The guaranteed annual wage," said the UAW in a special report, "represents the most essential element of that needed security struc-

ture."32

Apart from its failure to give the workers any real security, there is one effect of the drive for GAW that is studiously ignored by the union leaders. It is the incentive GAW has given for stepping up the adoption of automation. Thus, commenting on the UAW pacts with Ford and GM (embodying GAW or, as John S. Bugas, vice president of Ford, called it, a "supplementary unemployment benefit plan"), the *Wall Street Journal*, June 13, 1955, bluntly forecast a spurt in the sale of automation equipment as a result of the union's "victories." It said:

" . . . the greatest beneficiaries from layoff-pay plans, which are being obtained in the automobile business and sought in others, are likely to be the people who build factories and the equipment for them. . . .

"The most probable and most obvious consequence of all is to be found in expanded outlays on labor-saving machines.

" . . . There is a certain irony in the thought that layoff pay will bring on more of the very automation against which the union claims to be protecting its members."

In other words, when GAW (or supplementary unemployment pay) is written into a union contract, the capitalist has a much more powerful incentive to cut down his work force and reduce his liabilities. The net losers are bound to be the workers.

Can't the labor fakers see this? Of course they can. But they're scared. And what are they scared of? *They're scared of losing millions of duespayers!*

³² Automation, a report to the UAW-CIO Economic and Collective Bargaining Conference, Nov. 12, 13, 1954.

Automation is a threat to them, too, but a different kind of threat. Their point of view is not that of the workers; it is that of labor merchants. So, while on the one hand they collaborate with employers in diverting the workers from the real problem and its solution, on the other hand they are busy entrenching themselves, amassing huge treasuries and pension, or health and welfare, funds, in many cases investing these funds in banks, housing projects and other businesses. Cynical, disillusioned, resentful of restlessness and militancy among the rank and file, they are saving what can be saved, meanwhile feathering their own nests.

Sooner or later the American workers must wake up to reality and see the present unions for what they are, for what the *Wall Street Journal* long ago called the AFL, viz., "the strongest obstacle in this country to Socialism," and as such a bulwark of capitalism.³³ Sooner or later they must face up to the basic problem of their class and accept the logical solution thereto. In short, sooner or later the American workers must junk the present labormerchandising concerns, misnamed unions, and build a new union, a real working-class organization worthy of the name.

The Socialist Industrial Union program of the SLP shows the way.

³³ Wall Street Journal, June 6, 1905.

6. What Must Workers Do?

LONG BEFORE AUTOMATION came along, industrial improvements had made capitalism unmistakably obsolete. The initiation of automatic industry adds a final emphasis to the insanity of continuing to produce for private profit.

By our persistent failure to effect fundamental social changes imperatively demanded by modern economic conditions, we are ignoring one of history's most significant lessons. The lesson is that technology³⁴ has always exerted a revolutionizing influence on human society.

Mankind's evolution from savagery to contemporary civilization is mainly the result of a succession of technical conquests. These conquests caused important changes in man's mode of dealing with nature to satisfy his life's wants. The changes in the mode of production dictated (and eventually culminated in) corresponding changes in man's *social* way of life. Thus, obedient to a long series of interacting economic and social developments, the race has moved from primitive communism, through ancient slavery and feudalism, up to capitalism. And each stage of this evolution has been marked by the formation of institutions suitable to the prevailing mode of production.

 $^{^{34}}$ Although technology is a modern term, it embraces such ancient technical advances as the invention of the bow and arrow, and the discovery that iron ore can be smelted and shaped into implements.

Marx made this enlightening comment on technology in *Capital*: "Technology discloses man's mode of dealing with Nature, the process by which he sustains his life, and thereby also lays bare the mode of formation of his social relations, and of the mental conceptions that flow from them."

Today we are summoned to enter a new social stage—to build a modern society that will fit our modern industry. Why is this necessary? Why have capitalist institutions utterly ceased to fit? For the reason that these institutions have remained basically static while industry has undergone a vast transformation.

Consider the matter very carefully. Is there the faintest resemblance between early capitalist industry and industry in our times? Of course there is not! During early capitalism, the tools of production were relatively simple and readily attainable by the vast majority. Accordingly, the industries then were small. Under such circumstances, private ownership of the industries, and the tools of production, and production for profit were socially practical and served the interests of the vast majority. But then the compulsions of capitalist economics got busy. And what a difference they have made!

Industry is now grown to dimensions that are glaringly incompatible with capitalist ownership. Now industry has become a social undertaking in virtually every respect: It is social in scale. Its operation involves a social effort. It produces for society-wide consumption. Yet this *social* industry remains *private* property, and our social production is directed primarily to the amassing of profits for a parasitic owning few.

There is truly an extreme contradiction in these facts. There is also a reminder that technological progress does not by itself suffice to ensure human progress. Technological achievements are vitally important because they make social advance possible. However, no possibility is ever converted into splendid reality until the human agent steps in and takes an indicated social action,

The action plainly demanded by our present circumstances is a fundamental social reconstruction that will bring society's superstructure into line with its modern industrial base. This reconstruction we workers alone have the incentive and capacity to carry out.

LABOR'S HISTORIC TASK

Briefly, here is the task before us: All our industrial facilities and natural resources must be decreed the collective property of society. Management of production and distribution must be brought under the democratic control of the workers. Production must be instituted solely for the sane purpose of satisfying our collective needs. In short, we must establish a Socialist society.

How is the task of Socialist reconstruction to be consummated? Certainly not by means of the outmoded political State. The existing type of government is doubly disqualified by its *class* character and by its *geographic* basis. Its central function is to serve and protect the interests of the capitalist class. The *political* form of the State, that is, its organization on the basis of geographic divisions, is well suited to that class-serving function—but incorrigibly *un*suited to the function of Socialist government.

SOCIALIST GOVERNMENT

The government of the classless Socialist republic is not to be an engine of coercion ruling over men. Socialist government will have the useful function of administering industry for society's benefit. Through it the workers themselves will democratically regulate the production and distribution of an abundance for everyone. Naturally and necessarily, therefore, the constituencies of Socialist government will be the very industries to be administered.

Does this sound like a brand-new idea? It *is* as timely and up-to-the-minute as the latest development in automation! It is, moreover, the only conceivable form of government for an age of automatic industry. Because a democratic *industrial* administration is properly designed to cope with the complex processes of modern industry. And only this form can enable society to release for our collective prosperity the flood of good things producible in our super efficient economy.

Actually the "design" for the industrial government of the future has been ready more than 50 years. It was first outlined in 1904 by Daniel De Leon, America's foremost Socialist thinker. De Leon projected his concept of Socialist industrial democracy in these revealing and inspiring words:

"Civilized society will know no such ridiculous thing as geographic constituencies. It will know only industrial constituencies. The parliament of civilization in America will consist, not of Congressmen from geographic districts, but of representatives of trades throughout the land. Their legislative work will not be the complicated one which a society of conflicting interests—such as capitalism—requires, but the easy one which can be summed up in the statistics of the wealth needed, the

wealth producible, and the work required—and that any average set of workingmen's representatives are fully able to ascertain infinitely better than our modern rhetoricians in Congress."35

PROGRAM FOR PEACEFUL REVOLUTION

Besides outlining the plan of future industrial government, De Leon formulated a program whereby the workers can peacefully scrap capitalism along with its political State and establish Socialism and a democratic industrial administration.

His revolutionary program—now called Socialist Industrial Unionism—has also been determined by the economic and social circumstances of our industrial era, and by two considerations in particular. The first of these is that Socialism cannot be won unless the capitalist usurpers are confronted with a power before which they will have to bow. The second consideration is that civilized political action is both a necessary and potent aid to the Socialist Revolution: Especially in the United States where the people, in their majority, have the explicitly declared right to make whatever revolutionary social changes they may deem requisite for their welfare and safety.

Taking into account the foregoing considerations, Socialist Industrial Unionism offers a twofold plan of organization and action, political and industrial.

Politically the aim is to organize the working class behind the Socialist Labor Party to demand via the political ballot that capitalism be replaced by Socialism. To help marshall a majority vote for

³⁵ The Burning Question of Trades Unionism.

Socialism the Socialist Labor Party conducts an unceasing campaign of education and agitation among the workers. A leading feature of this educational campaign is constant stress on the vital need for a revolutionary industrial organization of the entire working class.

Industrially the aim is to organize the useful workers of all categories into a single, integrated industrial union—a *class* union animated by the determination to build Socialism and guided by a clear understanding of how this historic task is to be performed.

The integral Socialist Industrial Union is the only power through which the workers can surely and peacefully enforce a majority vote in favor of Socialist reconstruction. The SIU *will enforce and execute* the revolutionary mandate of the Socialist ballot by taking possession of the nation's industries and placing them under the democratic management of the workers who operate them. Thereafter, our Socialist Industrial Union will carry on as the permanent basis of an industrial representative government through which we can democratically administer and operate our Socialist economy to produce an abundance for everyone.

Being a scientific concept, Socialist Industrial Unionism remains fully as valid as when first enunciated. Indeed, developments of the past half century have made De Leon's program even more relevant and sound. More than ever it is imperative that we rid ourselves of the disintegrating capitalist order. More than ever it is imperative that we workers be ready with an organization that can

abolish and supersede capitalism. More than ever is Socialist Industrial Unionism the sole conceivable form our revolutionary organization can take.

Although the advance of automation will, like previous technological innovations, doubtless further rationalize the general structure of industry, the practicability of Socialist Industrial Unionism will not be the least bit impaired thereby. For De Leon has sagely provided us with a *flexible* principle of organization—one that takes the existing organization of industry as the mold to which the workers' industrial union must always conform; the form of the union altering as the form of industry alters. Accordingly, in the measure that automation further simplifies and streamlines the organization of our industries it will perfect these to serve as the mold of the Socialist Industrial Union-and as the constituencies of a Socialist Industrial Republic!

In the minds of intelligent and understanding workers, Socialist Industrial Unionism is destined to be associated more and more with the implications of automation and other labor-displacing techniques. Increasing numbers are going to realize that the revolutionary Socialist Industrial Union alone can overcome the staggering problems resulting from capitalist technological improvements because it alone will be determined and able to eliminate the basic cause of these problems, namely, private ownership of industry and its operation for private profit.

The day is approaching when no amount of lies will succeed any longer in concealing from a major-

ity of workers the truth that automation will affect them disastrously as long as-and only as long as!—it operates under capitalist control. When that day arrives our class will unite to seize the nation's industrial reins: We will unite politically by rallying around the Socialist Labor Party at the polls to demand the abolition of capitalism. And we will unite industrially in a mighty Socialist Industrial Union, the indispensable instrument for terminating capitalist rule and setting up a Socialist administration of industry. Then we shall be in a position to employ automation as "a magical key" to the attainment of a far better life. Having gained social mastery over our marvelous labor-saving instruments of production, we shall proceed to reduce our average work-week and work-year to a fraction of their present duration. At the same time we shall easily be able to produce a tremendously expanded volume of goods and services for our collective use.

The haunting fear of being permanently barred from employment by industrial improvements will die with capitalism. Socialism will not be guilty of wasting the productive energies of a single willing and able individual. Robot mechanisms *will* be increasingly utilized to perform society's drudgery. But workers who are freed by technology from disagreeable, difficult or inefficient labors will be promptly retrained for such new jobs as they choose. Their own administrative industrial organs will take care of that.

In addition to great plenty and leisure, Socialism will assure us complete economic security and free-

dom. Also, we shall have created a social environment that fosters universal fraternity and cultural elevation. Such is the rich promise held out by modern automatic industry.

It is a promise well worth striving for! What's more, we had better manfully master it *soon*, if we do not wish to taste some very bitter regrets. Because there lies before us the ugly certainty that if we fail to achieve a better life by establishing Socialism, capitalism is going to usher us into one or all of three hells: Either we shall experience an economic collapse and mass unemployment far worse than the depression of the thirties. Or, the human race will suffer virtual annihilation in a nuclear global war. Or, we shall be drawn into a new dark age of industrial feudalism that will see our class degraded to the level of unresisting serfs of a capitalist plutocracy.

Banish these nightmare alternatives of a capitalist future by consummating the program of Socialist Industrial Unionism, our only hope for social salvation! Organize the Socialist Industrial Union, the workers' invincible power!

The End