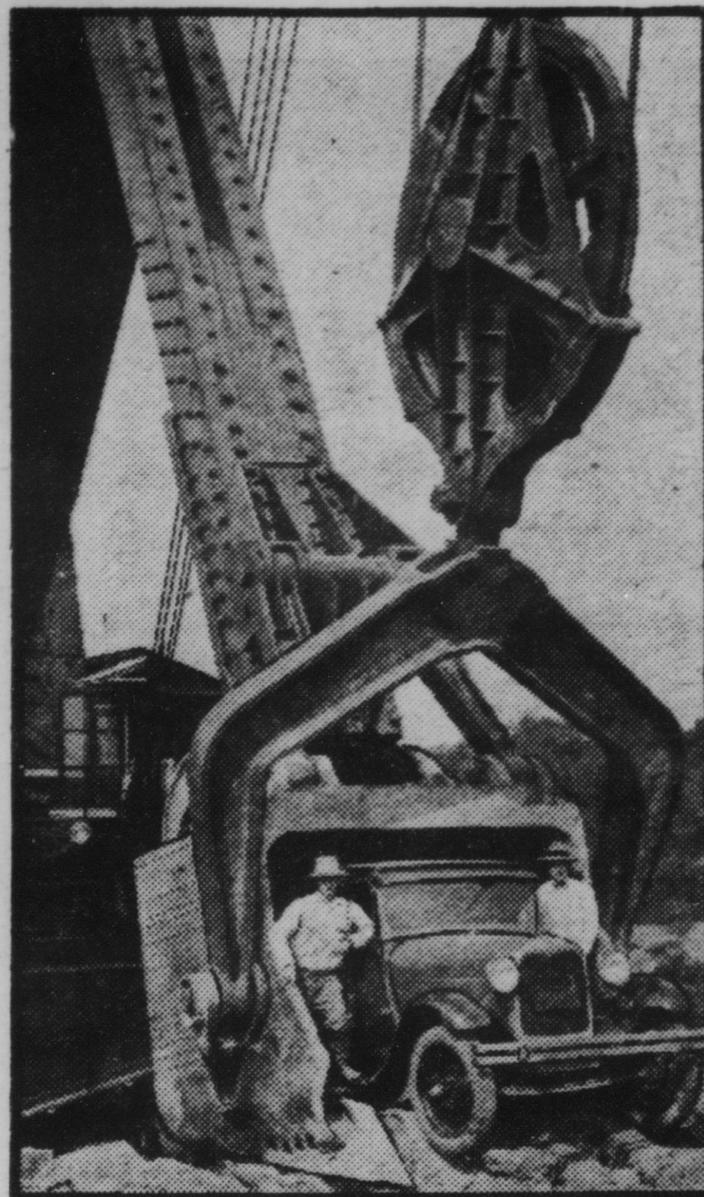


# JOBS that the MACHINE MADE



This monster of a mechanical age is not anti-social—for the steam shovel has made possible the employment of vast numbers of workers.

By Wilfred Owen

EVER since man created machines to multiply his powers of production there has been divided opinion regarding the effects upon employment which follow the adoption of technological improvements. With equal fervor the machine is blamed for unemployment and praised as the agent of our economic supremacy, and while the prophets of calamity see industrial salvation only in their land of Erehwon, Utopians are joyfully measuring production to infinity.

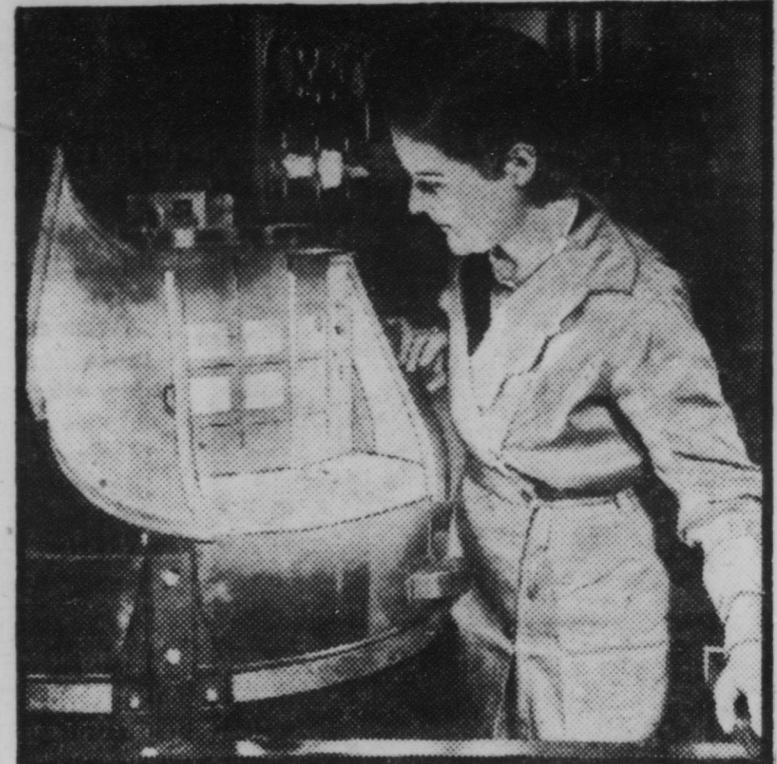
The fact remains, however, that while machinery may and often does displace the laborer, it also has the power of creating employment, and net effects are always dependent on particular circumstances, many of which lie beyond the machine.

When the electric refrigerator began to bar the ice man from America's back doors, many a disciple of the "good old days" lamented his passing. They overlooked the fact that electric refrigeration had joined the industrial roll call, creating new employment and new purchasing power, and that the marketing of this new machine was stimulating a demand for ice. By 1930 the number of ice dealers had increased 237 per cent over the census figures of a decade before.

A number of such examples have been pointed out by the Machinery Institute to illustrate the possibilities of technological improvements in the creation of employment and prosperity.

The modern office building, for example, is alive with the lesser monsters of a mechanized age: dictaphones, calculators, typewriters, and other labor-saving devices. It might be supposed that such equipment as this would mean sharp reductions in the office force. In reality it has made possible an amount of clerical work which could never have been attempted by unassisted labor, and in the period from 1920 to 1930 the total number of persons working as typists, stenographers, bookkeepers, cashiers and accountants had increased by 392,000.

A WELL-KNOWN iron monster is the steam shovel, which digs and lifts and loads materials that armies of men might be doing by hand; and we read-



Operating the "fadeometer," which tests the resistance of fabric colors to the bleaching action of the sun, is one of the many new occupations machines have made for women.

women's clothing today than 10 or 12 years ago.

For every seven persons engaged in the manufacture of men's furnishings between 1923 and 1925 there now are eight. The textile industry, according to the National Industrial Conference Board, was on the whole providing more employment per unit output in January, 1936, than in the same month of 1929. Who would return to the spinning wheel?

Nevertheless, to conclude from these examples that machinery never causes permanent displacement of labor would be as far from the truth as to assert that economic ailments are the inevitable result of technological innovation.

The type of technical innovation most likely to benefit the whole economic system is that which is directed to the

ily deplore, without thinking, the numbers of workers who no longer dig for a living.

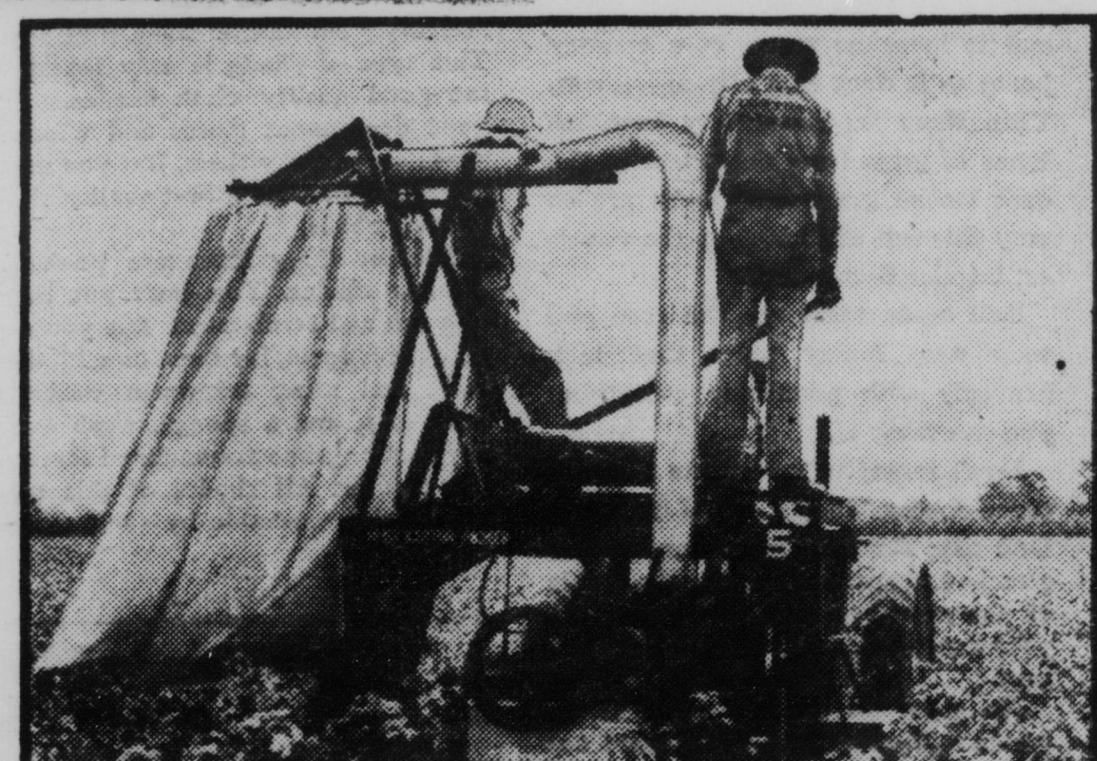
But the steam shovel, while it has admittedly displaced this type of unskilled labor, has at the same time made possible a program of industry which might never have been dreamed of had men and their shovels been required to build its foundations. The steam shovel, which has opened the earth for endless roads and towering skyscrapers, has created a tremendous new demand for raw materials, public works, transportation, and plant construction, employing a tremendous succession of workers, from miner and lumberman to steel workers, masons, carpenters, riveters, and a host of others.

When the dial telephone was installed on less than 3 per cent of the Bell system in 1921, there were 190,000 operators asking us, number, please? By 1930, with 32 per cent of the system on dial service, the telephone girls we had thought might disappear altogether numbered 249,000. Telephone calls had increased more than 100 per cent, at the same time nearly doubling the need for both telegraph and telephone linemen.

A prime example of the beneficial effects upon the labor market, which may be realized by the introduction of machinery and mass production is the automobile.

Had it been impossible to attain our present labor-saving technique in the manufacture of motor vehicles, it would be difficult even to visualize the 28 millions we now possess. It is reported that in 1935 six million persons depended either directly or indirectly upon the highway and motor vehicle industries for their livelihood—one out of every seven gainfully employed in the United States.

In 1931 there were approximately a million men engaged in the building of roads, and two and a half million truck, taxi, and bus drivers, and private



The Rust cotton picker in action. Mechanized farming is one type of machinery which does at times permanently displace workers.

chauffeurs. The purchasing power created by these new industries is tremendous.

THE automobile is the largest consumer of rubber, mohair, plate glass, lubricating oil, gasoline, nickel, lead and steel. Our use of this latter product has increased from 2600 pounds per capita in 1900 to 16,800 pounds in 1935. Such are the salutary signs of machine-made industry.

We have purchased more clothing than ever before since machinery made possible its production at lower cost, and though but a fraction of the human labor formerly required is now employed per unit of goods, demand has so increased with lower prices that almost a third more workers are making

manufacture of an entirely new commodity or service which creates a net increase in wealth.

Autos, radio, sound pictures and airplanes fall in this category of goods, constituting a type of technical progress which makes new employment and higher living standards.

Technological unemployment is not a new economic phenomenon, but it has become of very considerable significance with the more rapid rate of technical change and with the multiplying complexity of our industrial structure. We blame the machines which have created such amazing volumes of goods, although it is our own inability to use them properly, as well as certain other factors in our economy, which underlie our difficulties.