

# Science and the Worker

*Sociology*

JAMES J. DAVIS, Secretary of Labor, in *Monthly Labor Review*.

It has been said of ancient civilizations that only because the millions were forced to do the work could the few find time to think. To-day nearly every laboring man in the United States has "time to think." And he owes this mostly to science.

The other nations of the world to-day are justly proud of what they have done and where they stand. Their past and present are sprinkled thick with the names of great artists, musicians, poets, scientists, and inventors. And beyond all doubt these great thinkers have vastly enriched human life. Yet I can't help thinking their great achievements have been mainly for the benefit of the people of leisure and cultivation.

It seems to me that only here in America has the life of the workingman been really enriched. It may be that America has yet to take her place in the realm of art, but if that is so it is because America has been engaged in another and greater art. It seems to me that the great work America has done is to take science and invention wherever she finds them and put them to practical benefit for the man who works.

The great art America has developed is the art of wiping the sweat from the laborer's brow, the art of lifting from his back the burdens that have weighed him down through countless ages. Even in our own short history he used to toil from sun to sun—in the fields, in factory or shop, or under the ground in mines. He faced dangers in the mine. In the factory he had back-breaking weights to lift. His tools were poor, his pay was little, his hours were long. When they were done, in the language of the street, he had nothing to do but rest—if he could.

From that we have freed him. We have shortened his hours, lightened his labors. He used to need muscle, and we have given him endless steam and electric power instead. He used to need a handicraft that it cost him years to acquire, and we have given him machinery of wonderful cunning. With power and machinery one man produces with ease more wealth than hundreds produced with heart-breaking and back-breaking toil. And he shares in the wealth

he produces in the form of higher wages than workers were ever paid before.

For the first time in history we have not only given the worker "time to think"; we have also given him things to think of and an education to help him in his thinking. We have given him enjoyments in life unknown even to the kings of old. And we have given him ample means to buy and possess these enjoyments. All this is the work of science. This is what is meant by "the application of science to industry."

Science is as old as history itself, and has grown to be a great and many-sided thing. Other peoples have played their part in its development. But I believe it has fallen to America to develop the highest science of all. I mean the science that takes all the other sciences and puts them to practical use for the benefit of men—the benefit of every man. I mean the science of management.

You learn what it is by what it does. It is the science that has made us the richest of peoples. It is the science that has put within reach nearly every good thing of life, for all to enjoy alike—the automobile, and the broader life it brings; the well-warmed, well-furnished home—the list is endless, but the worker begins to have them all.

It is not the mechanical and chemical wonders that science performs to-day that interest me most. It is this effect that science has had in a social way, in opening life in all its fullness to those who throughout the ages never knew life at all. To appreciate what we have to-day as the gift of science—to see this blessing to men in all its tremendous scope and significance, you have to measure it against the struggles that men, and especially the workingmen, have had in the past.

If you do look back you will be struck with pity. Your pity will be not only for the hard lot of the ancient slave or menial but for his struggle to better that lot. You will also wonder at his ingenuity. It seems that from the very beginning of things men have grouped for this or that invention that will save them work, cure their ills, and make life better.

As the scientists find new ways of

meeting disease and lengthening life I foresee the worker living a longer life of usefulness. Too many employers have still the notion that a worker, no matter what his record or what his present skill, is through at 50. When I was a youngster at work in the iron and steel mills the man who reached that age was given a gold-headed cane—and his discharge. His years of willing work, the contribution of his skill to the enterprise that employed him earned him a little thanks. After they were spoken the enterprise had no further use for him.

Science, I believe, will drive this foolish notion out of our heads. It will stretch out the worker's period of ability to work. Instead of turning the still valuable worker away at 50, an age we now regard as hardly more than middle life, I believe we shall be proud of keeping the man of 70 still usefully employed. The fact will be noted that he is still strong, healthy, and able. His hand will control the new automatic machinery as well as a man of 30. And a more enlightened employer will not see a liability in that man's years, but rather an asset, in the added skill and experience his longer life of work will have given him. That, I believe, will be the order of things in the near future.

We who live in this age too little realize what has been done for us and the long labors that science has put in in order to bring us these boons we enjoy. As it is, we little appreciate the debt we owe to the pioneers of science long, long ago. Only yesterday invention gave us the airplane, yet hundreds and possibly thousands of years ago a savage race who knew nothing of the laws of air resistance and pressure developed a weapon that remains a marvel of skill to this day—the boomerang, a wooden blade so shaped, curved, and sharpened as to return to the hand of the thrower after being flung at an object a hundred yards away. For its day and age the boomerang was a more remarkable instrument than the flying machine of to-day. It was by no means as useful, but it represents that inherent ingenuity in man that has brought us to the exact knowledge we have to-day.

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