

ENGINEERING-ECONOMICS

# Prophets of Technocracy Tell How Industry Might be Ruled

## Realizing Radical Move Impossible Now, Veblen Outlined Method of Putting Engineers in Control of Industry

This is the first article of a series presented to illuminate the backgrounds and objectives of the movement that has found expression in the discussion of Technocracy. The material is given as information and news, not as our opinion or with our endorsement. The next article will describe the three kinds of experts who would rule the technologic state.

**I**F THE ENGINEER, technologist and scientist, those makers of the "machine age," are to come into control of our civilization and run our economic life, how would they govern?

This question assumes general importance due to the publicity given to Technocracy<sup>1</sup>, the current expression of the idea that technically and scientifically trained persons should control our economics and political destiny. Technocracy has seized the mantle of science, engineering and technology and has announced that the "price system is smashed." It emphasizes the obvious importance of mechanical energy today. It has not made a constructive plan for economic rehabilitation, just yet.

But the idea that science that makes the machines can best tell how to run them is not new. It has not sprung full blown out of the depression of the 1930's.

Rule by technology has its prophets. Just as Thomas Paine in his remarkable and powerful pamphlet of 1776, "Common Sense," stirred the intellectual fires that led to the American Revolution, just as Karl Marx's "Communist Manifesto" of 1847 gave the practical strategy of socialism and became the theoretical driving force behind the Communism of modern Russia, rule by technology has its prophets and manifestos.

Most articulate and challenging of these prophets, perhaps, was Thorstein Veblen. A dark-bearded ironist who received his Ph.D. at Yale, and taught economics at Chicago, Stanford and else-

where for his bread and butter, Veblen has been called the *enfant terrible* of American economics. His professional colleagues looked askance at him often and before his death a few years ago he achieved only a modicum of fame among intellectuals.

Of the penetrating and radical analyses of civilization contained in his nine published books, a single chapter in one of them vividly blue-prints the way in which technology would take over the government.

Another prophet is Prof. Frederick Soddy, the British scientist. His brilliant work on radioactivity and his 1912 theory that a chemical element can exist in different forms or isotopes of different atomic weight, since confirmed widely, won the Nobel prize in chemistry in 1921. He is now Dr. Lee's professor of chemistry at Oxford. With keen scientific eyes he has looked at civilization's economic paradox and his 1926 book, "Wealth, Virtual Wealth and Debt," challenges conventional economics. The charge has been made that the Technocracy group used his ideas freely.

With Veblen, Soddy and other "rule by technology" prophets perhaps the ma-

majority of scientists and engineers will not agree.

But their blue-prints by which technologic government would be built are worth viewing in these unsettled times.

How would technologic rule of government and industry be accomplished? Over a decade before the word "technocracy" obtained current usage, Thorstein Veblen, iconoclastic American economist, visualized the day when serious, widespread consideration would be given to a government by technologists, engineers and scientists.

He wrote a vivid blue-print of technologic government. In 1919 it was published in *The Dial* and later (1921) it became the concluding (Turn to Page 62)

METEOROLOGY

## Origin of Newly-Found Stratosphere Clouds Sought

**T**HE EXISTENCE of clouds at heights from 15 to 19 miles above the earth, a region of the atmosphere where clouds have never before been believed to exist, has been established by observations made in Norway by Prof. C. Störmer with the photographic equipment he has successfully used in measuring the height of aurora.

These high clouds have been called "mother of pearl clouds" on account of the pureness of the spectral colors with which they glow and the concentric arrangement of their coloration in band after band similar to the color scheme inside a clamshell. Shades of pink, lilac, purple and blue occur but generally reddish hues predominate. These colors shine about as (Turn Page)



**"MOTHER OF PEARL" STRATOSPHERE CLOUDS**

Twice as high as the lofty clouds heretofore studied, these unusual clouds set an altitude record. They are some 15 to 19 miles above the earth. Prof. C. Störmer, their discoverer, took this photograph at Oslo, Norway, Jan. 13, 1929.

<sup>1</sup>Attention is called to the difference between "technology," the application of science to the arts, and "Technocracy," the coined word.

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ing chapter of his book "The Engineers and the Price System" (Viking Press).

Titling it "A Memorandum on a Practicable Soviet of Technicians," Dr. Veblen (for he was a professor of economics and a Yale Ph.D.) opened with:

"It is the purpose of this memorandum to show, in an objective way, that under existing circumstances there need be no fear, and no hope, of an effectual revolutionary overturn in America, such as would unsettle the established order and unseat those Vested Interests that now control the country's industrial system."

### Technical Men Necessary

It is suggested that Veblen may have written this with his tongue in his cheek. Today he might not have used the word "soviet," with its U.S.S.R. implications. But he clearly realized that scientifically trained men and engineers, "technicians" he called them, are necessary to the establishment of a new order. He wrote:

"No effectual move in the direction of such an overturn can be made except on the initiative and under the direction of the country's technicians, taking action in common and on a concerted plan. Notoriously, no move of this nature has been made hitherto, nor is there evidence that anything of the kind has been contemplated by the technicians. They still are consistently loyal, with something more than a hired-man's loyalty, to the established order of commercial profit and absentee ownership. And any adequate plan of concerted action, such as would be required for the enterprise in question, is not a small matter that can be arranged between two days."

Any plan of action, Veblen em-

phasized, that shall hope to meet the requirements of the case in any passable fashion must necessarily have the benefit of mature deliberation among the technicians who are competent to initiate such an enterprise. He listed the following initial requirements, indispensable to the initiation of any enterprise of the kind in such an industrial country as America:

It must engage the intelligent cooperation of several thousand technically trained men scattered over the face of the country, in one industry and another.

It must carry out a passably complete cadastration (survey) of the country's industrial forces.

It must set up practicable organization tables covering the country's industry in some detail,—energy-resources, materials, and man power.

It must also engage the aggressive support of the trained men at work in transportation, mining, and the greater mechanical industries.

Setting down "without a touch of ambiguity" his belief that any fear of an effectual move toward government by technicians is "quite chimerical" and that "absentee ownership is secure, just yet," Veblen nevertheless fashioned a working drawing of technologic rule.

### Abdication Most Probable

His purpose was, he wrote, "to set out in summary fashion the main lines which any such concerted plan of action would have to follow, and what will of necessity be the manner of organization which alone can hope to take over the industrial system, following the eventual abdication or dispossession of the Vested Interests and their absentee owners."

Not necessarily through revolutionary overturn with blood and class war would the change occur. Veblen wrote:

"It is always the self-made though

reluctant abdication of the Vested Interests and their absentee owners, rather than their forcible dispossession, that is to be looked for as a reasonably probable event in the calculable future. It should, in effect, cause no surprise to find that they will, in a sense, eliminate themselves, by letting go quite involuntarily after the industrial situation gets quite beyond their control."

Remember that he wrote in 1919 just after the World War and before the period of prosperity that evolved into the current depression. At that time, Veblen said, the "Vested Interests and their absentee owners" had already sufficiently shown their unfitness to take care of the country's material welfare, "which is after all the only ground on which they can set up a colorable claim to their vested rights." And he added that "something like an opening bid for a bargain of abdication has already come in from more than one quarter."

*Science News Letter, January 28, 1933*

### PSYCHOLOGY

## Awareness of Surroundings Due to Response to Them

IT IS NOT the raucous note of the automobile horn that makes you aware of its sound, but rather your own jump and quickened heart beat and the other responses that you make to it.

No matter how loud and strong and close to your ear the sound may be, or how often the horn may honk at you, unless you make some response, outwardly or inwardly, you will have no knowledge of it. This is a practical illustration drawn from the theory proposed by Dr. Herbert S. Langfeld, of Princeton University.

Dr. Langfeld quoted many authorities from the Greek philosophers to present-day experimenters in support of his theory that it is not your awareness of a situation that makes you act, but your action that makes you aware.

Experiments have been made which detected that movements accompany silent thought, he said. The action patterns during silent thought correspond to those obtained when words are actually spoken. Dr. Langfeld predicted that more research of a similar nature will be conducted in the future.

*Science News Letter, January 28, 1933*

The dachshund is a German breed as old as Roman Empire days, in the opinion of a German scientist who has studied the dogs of early civilization.

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