GENERAL SCIENCE

Call To Action Sounded For All Men of Science

Retiring President of A. A. A. S. Warns That Ignorance Is Gravest Danger to Democracy; Teaching Urgent Need

A CALL to action for scientific men to take a crucial part in the present struggle to maintain democracy and freedom, was issued by Dr. Wesley C. Mitchell, research director of the National Bureau of Economic Research and economics professor at Columbia University, when he delivered as its retiring president the keynote address of the meeting of the American Association for the Advancement of Science in Columbus, Ohio.

The world of science can make a major contribution to the preservation of the institutions that secure freedom to all citizens, Dr. Mitchell declared.

"The gravest dangers to democracy come from within, not from without," he warned. "They are ignorance and propaganda that turns ignorance to its uses. The best way of dispelling ignorance is by diffusing knowledge. The most effective defense against meretricious propaganda is critical inquiry. John Dewey is warranted in saying that 'the future of democracy is allied with spread of the scientific attitude.' To foster this attitude among their fellow citizens by all means within their power is a duty incumbent upon us who cherish science.

"As teachers in schools and colleges we can help thousands to develop respect for evidence. As citizens we can be brave opponents of prejudice and hysteria. We can promote general understanding of the methods and results of science through our own writings or those of allies more skilled in popular exposition. These things we should do, not as high priests assured that they are always right, but as workers who have learned a method of treating problems that wins cumulative successes, and who would like to share that method with others."

To increase knowledge of human behavior was declared by Dr. Mitchell to be "the most urgent item in the unfinished business of science.

"If we had keener insight into individual psychology," he said, "we might not be able to alter fundamental drives, but we might be able to direct them into beneficent channels. Preaching righteousness doubtless prevents men from being as bestial as they might otherwise become. Appeals to reason prevent them from making as many errors as they otherwise might. But the moralist and the rationalist admit that the results of their efforts are grievously disappointing.

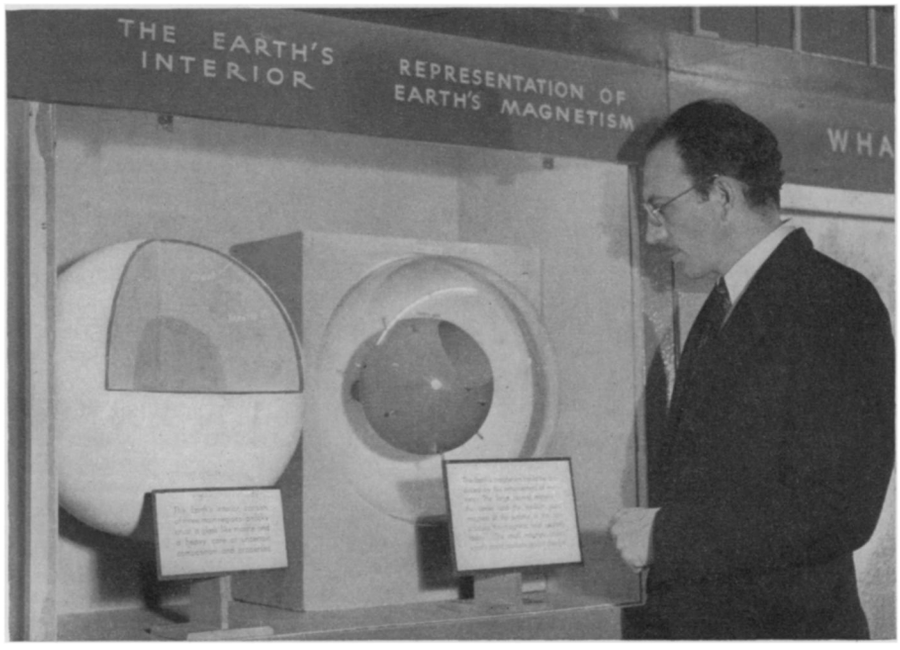
"Scientific men with any gift of self-analysis realize that they have their own shares of selfishness and animosities. To subdue traits in oneself is hard enough to give an inkling of the difficulty of controlling them in society at large. Perhaps, and perhaps is all we can say, if we can come to a clearer understanding of how we behave, we can learn how to condition men so that their energies will go less into making one another miserable.

"One of the things we have learned about individual behavior is that it is influenced greatly by social environment," Dr. Mitchell continued. "In John Dewey's phrase, 'all psychology is social psychology.' Improving knowledge of social organization and its working is therefore part and parcel of the urgent task of learning how men behave. Though we may believe ourselves citizens of the most fortunate nation in the world, we have no more reason for complacency about the way in which our social organization works than for complacency about individual behavior.

"For example, our economic organization does not permit us to buy from one another as much wealth as our workers are able and eager to produce. Even in the best of years we fail to provide a national income large enough to give American families on the average what experts on household economics hold to be a standard of living adequate to maintain efficiency.

"In bad years this adequate income falls off by a fifth or a sixth; in the very worst years by 40% or more. All this is true of our industrial equipment and practise as they stand. Proud as they are of our technological progress, engineers know that much of our equipment and many of our methods are far behind the times. We fail to make full use of knowledge that technological applications of scientific discoveries have put at our disposal.

"I might develop the shortcomings of our economic organization at great length,



EARTH'S MAGNETIC FIELD DUPLICATED

For the first time, a cluster of magnets has been assembled so that they reproduce the magnetic field of the earth and its yearly changes. Dr. A. G. McNish, of the Department of Terrestrial Magnetism is demonstrating the model at the Carnegie Institution of Washington's annual exhibit.

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