

GENERAL SCIENCE

Research Needs Freedom, Says National Academy Head

SCIENTIFIC research must have freedom of action, and it should also be given liberal support by both Government and industry, declared Dr. Frank R. Lillie, president of the National Academy of Sciences, before the semi-centennial meeting of the Society of Sigma Xi. Discussing specifically biological research, Dr. Lillie called attention to its numerous practical applications in agriculture and industry, but stressed the necessity for fundamental investigations without too pressing demands for immediate "usefulness" of every discovery.

He said, in part:

"Professions and industries and Government agencies can hardly be expected to pursue a purely rationalistic course within the confines of their own organizations. The untrammelled universities are the great homes of original scientific discovery. Hence the industries and the Government would be well advised to support their independence and freedom liberally. There is a tendency on the part of these agencies, and also on the part of great foundations, to offer support for specified investigations, only of presumed promise. Too much of this may cripple freedom of inquiry.

"Business of Science"

"We hear much about the 'business of science' nowadays, meaning generally its utility as a social agency, and of the duty of scientists to be socially minded. Consciousness of this duty is growing and should develop still more. But society itself should recognize that the root of science is imagination and devotion to abstract truth; that, so long as the root lives, there is promise of new fruitage; and if it dies the promise is lost. The root must be watered with

undying courage and persistence and fertilized with a passion for accuracy. Thus arises the creative scientist. The best investment in science today is in able, free, creative individuals. Society can well afford to support them liberally with full freedom."

Universities Best

Universities are the best homes for scientific research, because they can be most free from both narrow-minded "practical business" control and handicaps of political change. University men are most nearly free not only to follow that kind of research that is expressed in long-range dollars-and-cents values, but the even more important type of scientific adventuring that carries them into the realms of fundamental ideas, sometimes changing the whole philosophical and social outlook of a people. This was the thesis of an address by Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, presented at the same meeting.

While hailing the contributions to both material and intellectual progress made by men in research laboratories supported by the more far-sighted kind of business leader, Dr. Compton was unsparing in his censure of the self-styled "hard-headed, practical business man," terming him "a man without vision, imagination or enthusiasm for new things; a man who scoffs at theory or a college degree; a man whose sole criterion of proper practice is that which he has been accustomed to in the past . . . The withering policies of such men have driven many a flourishing business into obsolescence."

Similarly, he paid his stinging respects to remote control by financial managers who see everything through an accountant's eyes, and will not look more than a month or a year ahead at that. Another obstacle to scientific progress seen by Dr. Compton is government regulatory activities for the stated objective of protecting the public, which sometimes "boomerang" disastrously because politically chosen leaders lack the scientific and technical qualifications indispensable to correct policy decisions.

Dr. Compton made a plea to his audience, composed mainly of highly trained scientists, for greater activity in placing

their results before the public in understandable form. He said:

"I am convinced also, on the basis of experience in the last few years, that there is tremendous room for effective missionary work for science in convincing the public, and particularly the leaders of the public, of the values of scientific work. In some cases this conviction can be made by argument, but in general it is likely to come only through the sympathetic interest of the public and this means a great program of mass action . . . The scientist has just as great an obligation to maintain friendly and understanding relations with the public as he has to operate with skill and devotion in his laboratory."

Science News Letter, July 4, 1936

MEDICINE

Persistent Hoarseness Is Early Sign of Cancer

PERSISTENT hoarseness calls for careful examination by a trained throat specialist, warns Dr. Leo Schwartz (*Preventive Medicine*, June). He calls hoarseness the "herald symptom" of cancer of the larynx and points out that it is also the symptom of 49 other conditions, none of them trivial. Cancer of the larynx gives its warning sign earlier and remains localized longer than cancer anywhere else in the body, and early diagnosis and treatment offer a better chance for recovery than in other cancers. In the early stage this condition can be relieved by an operation which does not deprive the patient of his voice or necessitate the use of an artificial voice box.

Science News Letter, July 4, 1936

Two-story houses with windows were built in Palestine 4,000 years before Christ.

THE IDENTITY THEORY By Blamey Stevens

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● RADIO

July 7, 2:15 p.m., E.S.T.

SAFETY FIRST IN SUMMER EATING
—Miss Melva Bakkie, nutrition consultant of the American Red Cross.

July 14, 2:15 p.m., E.S.T.

UNPOPULAR WEATHER—J. B. Kincer of the United States Weather Bureau.

In the Science Service series of radio discussions led by Watson Davis, Director, over the Columbia Broadcasting System.