

law-Gray (Leeds), Moled (Madrid), Lepape (Paris), Klemenc (Vienna), Timmermans (Brussels), Keesom (Leyden) and Cawood (Leeds). The committee called attention to the international features of the laboratories of Leeds (Whytlaw-Gray) and of Madrid (Moles), owing to the results they obtained, as well as to their equipment and specialization of their staff.

The reports will be published by the International Institute of Intellectual Cooperation. At the assemblies of the committee to be held during the present year, the following questions will be discussed: "New Vitamines"; "Nomenclature of Genetics"; "New Theories of Modern Physics"; "Coordination of Scientific Terminologies" and "The Double Electric Couch."

DISCUSSION

AN INVITATION TO TEACHERS OF SCIENCE

A BRIEF account of the first meeting of the committee appointed by the American Association for the Advancement of Science to consider the improvement of science in general education has already appeared in *SCIENCE*, May 20. This report was prepared by Professor Caldwell, as chairman of the older committee on The Place of Science in Education, which has sponsored this newer committee, and which assisted in its organization at Columbus on April 30 and May 1.

The new committee will require the active cooperation of many teachers of science at the college and university level if it succeeds in unearthing the information with the discovery of which it has been charged. It is hoped that such cooperation will be stimulated by a brief statement of the present objectives.

It is generally agreed that the training of professional scientists has reached a high degree of effectiveness in the United States. But there is increasing evidence, from many quarters, that the present contribution of science to the general education of the bulk of our citizens is not what it should be. To analyze this problem, to secure adequate information about what is already being done to improve matters and to develop a program of investigation which will lead to more wide-spread improvement, is the task of this committee. More immediately, the committee has at its disposal sufficient funds to enable it to do preliminary work, in the hope that by the middle of 1939 a program of sufficient value to warrant further support can be developed and presented.

To accomplish this preliminary work effectively the widest cooperation from the scientific professions is necessary, and it is the purpose of this note to invite such assistance. Waiving any less direct considerations and placing the matter on the plane of enlightened self-interest, this cooperation ought to have a very practical outcome. For example, scientific work was the first to feel the pressure of retrenchment a few years ago, just when it should have been extended. With a public more adequately aware of the value of science there would be less danger of the repetition of such folly. There are other considerations of a more serious kind, but this one should suffice.

We have decided as our first step to invite the co-

operation of individuals and societies as well as of teaching departments and divisions in our work. In carrying forward our preliminary work we should like to have submitted to us a detailed and precise statement of the aims that individuals, departments or institutions are seeking to achieve in general science courses in so far as these go beyond preparation for technical and vocational training.

It should perhaps be mentioned that techniques have been developed to measure with considerable accuracy the degree to which any explicit aims are achieved by teaching. It is hoped that eventually the committee may be able to place facilities for such evaluation at the disposal of those who are interested. But obviously the first task is that of acting as a center for comparing and finding the common factors in the various objectives in science teaching for general education, taking due cognizance of the wide variation in local conditions and searching, for whatever common aspects there may be back of all this inevitable variety.

In addition, information as to studies already under way towards the coordination of science instruction, syllabi, special instructional methods including visual education, testing and teacher preparation, will be welcomed.

Such material may be sent directly to the chairman of the committee or to any of its members.

Tentatively the committee has phrased its immediate task as follows: "In connection with a preliminary survey, to request information concerning experimental modifications of general courses in the sciences at college level. A general course is defined as a course open to students without college prerequisites, which utilizes material from a considerable portion of the science in question; which should make a contribution to the general education of the student; and which is not primarily a preparation for further work in the subject."

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