Comments and Communications

Science Teaching in the Secondary Schools

A VERY important problem in secondary science teaching in addition to those mentioned by Professors Schriever (SCIENCE, **115**, 96 [1952]) and Watson (SCIENCE, **116**, 261 [1952]) is how to interest high school students in taking the available mathematics and physical science courses. Today we find that, even in large high schools with competent staffs and adequate laboratory facilities, the enrollment in these courses is relatively small. Professor Schriever points out the same problem when he states that the U. S. Naval Academy had to forego the requirement of high school physics for its prospective candidates. How often, however, have college science instructors heard their students remark how they wished that they had taken more high school mathematics and science. It is certain that many promising young men and women have been lost to the scientific professions because of this lack of background.

Here, of course, we can hear the objection that the job of the high schools is only in part college preparatory, and thus the importance of mathematics and science is often minimized by some public school administrators. The answer to this objection was well given by Professor Schriever, that the secondary schools take a lead from the colleges by requiring of *all* students good general education courses in the physical sciences. These courses should include laboratory work and elementary mathematical treatments of the subject matter.

My big question, however, is: Why do we not guide our high school students better in their course selection? The high school student naturally takes the easiest way out and most often chooses not to take the courses under question, because they already have a reputation of being hard and requiring more work. If the parents also fail to exercise their influence through lack of understanding of the problem, the student loses out on one of the most important phases of his education, which would provide him with a better appreciation of his natural environment and of every day living in a technological age.

If we believe in "life adjustment education," as one of the latest pedagogic phrases goes, why do we not require our students to take these courses? How do we expect immature high school students to make their own correct choices when nearly every department in institutions of higher learning requires the more mature college students to follow rather closely prescribed curricula, which allow in most instances for only a few elective courses through their whole college career?

I believe we educators too often underestimate the capabilities of our students, and on requiring more mathematics and science in the high schools we would find not only that students could manage these courses but that they would even greatly enjoy them. The results would be well worth the extra effort, for it would lead to a laity better informed on scientific questions and at the same time help to fill the sadly depleted ranks of scientific personnel.

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Employment and Education Fair in Science

AT the initiation of the New York Branch of the American Association of Scientific Workers a job and educational conference was held at the New Lincoln School on Saturday afternoon, September 13. Sponsored jointly by the AAScW, the American Council on Human Rights and Committee to End Discrimination in Science and Health, the fair has made a definite contribution toward the achievement of equal opportunities for Negroes in science.

Alexander Sandow, professor of biophysics at New York University, addressed the opening session. "The very fact that such outstanding men as Benjamin Bannaker, James Derham, Elijah McCoy, Jan Matzeliger, Granville T. Woods, Ernest E. Just, Charles Drew, and George Washington Carver have arisen," said Dr. Sandow, "serves to emphasize the tremendous loss which science in our country has suffered through the practice of discrimination." He pointed out that as long as discrimination exists there can be no true democracy and called upon scientists to work to bring about an end to this practice in their own fields. Miss Valjeanne Taylor of the American Council on Human Rights and Cuthbert Pitter of the Committee to End Discrimination in Science and Health were co-chairmen of the meeting.

Some 20 outstanding Negro and white scientists participated as consultants on the panels held in the fields of physics, biological sciences, chemistry, psychology, and engineering. Among the panel consultants were I. Fankuchen, professor of crystallography at the Polytechnic Institute of Brooklyn, Peter Bergmann, professor of physics at Syracuse and at the Polytechnic Institute of Brooklyn, Harry Grundfest, associate professor of Neurology at Columbia University, and Lester Florant, research engineer at the Allen B. Dumont Laboratories.

The most important part of the fair was that in which the panels were in session. Here Negro scientists and prospective scientists sought council in the panels on questions dealing with job and educational opportunities in science. Despite serious individual problems the registrants seemed most concerned with developing general approaches to the problem of discrimination. A Negro engineer emphasized the need for a more positive approach which laid stress upon the present professional and scientific activities of his people as a means of encouraging young people to enter the field as a career. Other speakers urged white and Negro scientists to take the offensive in opening