

of Birmingham, to establish a Charles Holfcroft Research Fund.

FUNDS for the new chemical laboratories at University College, London, have been raised by a committee, of which Prince Arthur of Connaught is president and Captain the Hon. Rupert Guinness chairman and treasurer. The cost of the site, building and equipment will be £120,000. £100,000 has already been raised, leaving £20,000 to be found. In order to facilitate the immediate provision of this, Sir Ralph C. Forster, who has already subscribed generously to the cost of the laboratories, has promised £5,000 on condition that the remaining £15,000 is raised speedily.

A SCHOOL of Mines has been organized at Washington State College at Pullman. Under the new plan, the department of mining becomes one of the eight schools or colleges that comprise this state institution, and Professor Francis A. Thompson, head of the department, becomes dean of the School of Mines. Full facilities will be available for instruction in, and treating ores by, all standard forms of treatment, including leaching, amalgamation, concentration, roasting and smelting. A special laboratory will be devoted to the flotation process.

A. B. MCDANIEL, former assistant professor of civil engineering, University of Illinois, has been given administrative charge of the general engineering department of Union College, Schenectady, N. Y.

H. B. ELLENBERGER, Ph.D. (Cornell), has been appointed associate professor of animal and dairy husbandry at the College of Agriculture of the University of Vermont.

PROFESSOR HENRI ROGER has been appointed dean of the school of medicine of the University of Paris, to succeed the late Professor Landouzy.

DISCUSSION AND CORRESPONDENCE TEACHING CHEMISTRY AND TEACHING CHEMISTS

LOOKING over the lists of chemistry courses offered in the various colleges and universities, one is impressed by the thoroughness with which the field has been covered. To suggest

additions to the already long lists may seem, at first thought, uncalled for. There is a group of courses so obviously essential that we find them taught in every university, and there is a pretty clear understanding of what courses belong to this group. Supplementing this basic group are numerous courses extending and amplifying it in various directions determined by local influences, traditions and training of the staff members. The scheme has one serious defect, which is that there is seldom to be found in the whole list of courses, a single one designed to give the would-be chemist an intelligent and comprehensive idea of the science of chemistry, its history, literature, and rôle in a modern civilized world. A man who diligently pursues the courses offered will undoubtedly attain to a considerable knowledge of the laws, facts and theories of chemistry. Will he then be a chemist?

The writer was recently called upon to grade the examination papers of contestants for the Alpha Chi Sigma Scholarship Medal. There were eighteen contestants, representing ten prominent universities or colleges. Contestants were all in the second semester of the junior year and, since they undertook to compete in a scholarship examination, may be considered as somewhat more alert than their classmates. That grades attained would differ widely was to be expected. The sequence of courses is not the same in the schools represented, and various other factors contribute to make it difficult to get an adequate measure of the relative standing of students; but, allowing for all these, there was clearly shown a striking lack of information and of view point whenever the questions of the examination passed beyond the field of strictly chemical facts, laws and theories. A few examples will illustrate the point: Of the eighteen contestants, eight were unable to name a single American journal of chemistry, eleven were unable to name an English journal, thirteen could not name a French journal, and eight could not name a German journal. Of the eighteen contestants, only five could name a general treatise on inorganic chemistry; only nine could name such a work on organic

chemistry. Twelve of the eighteen could not name the president of the American Chemical Society. Only six of them knew of the recent work on the atomic weight of lead; only two of the eighteen could name three important chemical discoveries of the last ten years. Bunsen, Scheele, Wöhler, Ramsay, Mendeljeff were, to most of the contestants, just names of chemists who had done something or other. Required to name five prominent living chemists, most of them named three or four of the members of the local chemistry staff. Some of the men named are, indeed, prominent chemists, but when a student indicates that four out of five of the world's prominent chemists are included amongst his instructors, he is showing a lack of viewpoint rather than an intelligent loyalty.

It is far from the purpose of this note to belittle the knowledge of these students. They are, in all probability, more intelligent than the average. The point is that they should have, after three years of study in the field of chemistry, some knowledge of the use of a chemistry library, and more than a naïve understanding of contemporary chemistry. Perhaps we have expected them to absorb general chemical information from the atmosphere of a chemistry department. The actual situation is that their views of chemistry are hedged in between the covers of some ten or twenty text-books. If this is the case, would it not be worth while to add to our chemistry curricula a few courses—call them what you will—aimed squarely at supplying that body of general chemical information not to be found in text-books? To teach chemistry is one thing; to teach men to be chemists is a greater task.

HARRY A. CURTIS

UNIVERSITY OF COLORADO,
BOULDER, COLO.

ANOTHER PHASE OF "ACADEMIC FREEDOM"

DURING the last few years there has been considerable agitation and many articles have been written upon the danger of loss of "academic freedom," by which is meant the right of college and university teachers to

think and express their thoughts without fear of losing their positions through the possible unpopularity of their own opinions. All who are associated in any way with education realize the danger of political and financial overshadowing of independent thought, especially when it is opposed to the established order of things. It is evident, however, that there are still some who do not grasp the essential difference between the clerical attitude toward education a hundred years ago and the scientific attitude toward education to-day. A hundred or more years ago the imparting of information and of established creed was believed to be the entire function of the institutions of learning. To-day we advocate the stimulation of active, progressive thought which questions established ideas and is anxious to have before the mind all possible theories in order to further stimulate thought and investigation. A recent incident shows, however, that such is not by any means the attitude of all who should be leaders in freedom of expression of thought, but who are not.

In the December twenty-ninth issue of *SCIENCE* of last year a short item entitled "1916 or 1816?" calls attention to the fact that a certain literary society in one of our universities was announcing a phrenological lecture with the title "Brains—How to Know and Handle Them." The author of the note says simply at the end of his quotation of the announcement: "Comments would seem superfluous." However, it seems that they were not to him "superfluous," since in the January nineteenth issue of the same journal, under the caption "Phrenology," the same writer says, "It is *gratifying* to report the receipt of the following communication," which was signed by the dean of one of the colleges of the university. The letter quoted brings out the information that the author of the notes in *SCIENCE* wrote twice to the university protesting against the giving of the announced lecture on "Brains," with the result that the university president requested the literary society to cancel the lecture, which was forthwith done.