

Columbia 166, *Cornell* 157, *Harvard* 147, *Yale* 86, *Massachusetts Institute of Technology* 72, *Northwestern* 71 and *Michigan* 69. *Lehigh* with its 25 foreigners and *Purdue* with 19, make a far better showing than any of the New England colleges, while *Bryn Mawr*, *Mt. Holyoke*, *Smith*, *Vassar* and *Wellesley* have only 31 foreign students altogether, as against 21 at *Amherst*, *Bowdoin*, *Dartmouth*, *Wesleyan* and *Williams*.

Examining the foreign delegations of the different institutions by continents, we note that the order in North America is *Pennsylvania*, *Columbia*, *Cornell*; in South America—*Pennsylvania*, *Cornell*, *Massachusetts Institute of Technology*; in Europe—*Pennsylvania*, *Columbia*, *Harvard*; in Asia—*Cornell*, *California*, *Harvard*; and in Australasia—*Pennsylvania*, *Northwestern*. Of the countries that send at least ten students to any one institution *Harvard* leads in Canada and England; *Pennsylvania* in Central America, Brazil, Germany, Australia and New Zealand; *Cornell* in Cuba, Mexico, Argentine Republic and China; *Columbia* in Russia and Japan. As for individual countries the order for Canada is *Harvard*, *Columbia*, *Michigan*, *Northwestern*, *Yale*; for Cuba—*Cornell*, *Pennsylvania*, *Columbia*; for Mexico—*Cornell*, *Pennsylvania*, *Missouri*; for Germany—*Pennsylvania*, *Harvard*, *Columbia*; for England—*Harvard*, *Columbia*, *Pennsylvania*; for Russia—*Columbia*, *Pennsylvania*, *Harvard*; for China—*Cornell*, *Harvard*, *Pennsylvania*, *Yale*; for India—*California*, *Ohio State*; for Japan—*Columbia*, *California*, *Yale*; for Australia—*Pennsylvania*, *Northwestern*.

RUDOLF TOMBO, JR.

COLUMBIA UNIVERSITY

THE UNIFICATION OF THE METHODS OF ANALYSIS OF FATS AND OILS

THE International Commission for the Unification of the Methods of Analysis of Pe-

troleum Products having been able to accomplish so much it was thought that a commission along similar lines to consider the analysis of fats and oils would be of equal value and the need for some work along this line is evident when we consider to what an extent oils and fats are bought and sold on chemical analysis.

In order to bring this about there have been organized in various scientific societies committees for this purpose. At the present time committees, or sections as they are called, have been formed in Germany, Italy, France, Sweden, Holland, Hungary, Switzerland and England. These committees or sections are for the purpose of making a study of the conditions existing in their own country preliminary to the organization of an International Commission.

The committee or section in this country is made up of three committees, one from the American Chemical Society, one from the American Society for Testing Materials and one from the Association of Official Agricultural Chemists, which united in forming what is known as the Joint Committee on the Unification of the Methods of Analysis of Fats and Oils.

The work of this section, or committee, is first to study the condition in this country preliminary to taking part in an international conference and this work the committee considers of the first importance. The committee has secured the active cooperation of the U. S. Bureau of Standards which will enable it to carry on its work under the most advantageous conditions as regards standardizing of necessary apparatus and chemicals and the preparation of tables and samples.

So far the work under way is, first, consideration of tables and methods of expression of specific gravity and consideration of standard temperature conditions.

Second, a consideration of the meaning of cold or cloud tests in oils and the collection of data as to methods used and their interpretation.

Third, a consideration of the proper method of expressing acidity in oils and fats.

Fourth, a consideration of the proper method of standardizing refractometers.

The committee is now engaged in the collection of information as to the practise in use by the chemists connected with the fat and oil industry of this country by means of letters sent to as large a number of chemists who would be interested in this work as possible. As soon as this information is collected it will be considered and if necessary cooperative work undertaken to decide on the most satisfactory method or mode of expression, and finally when this is done the committee will be in a position to make its recommendation. In order to prevent needless duplication of work in the various societies in this country, the committee is collecting data as to all the work being undertaken along this line and will try to assist in whatever way it can this work of bringing some order out of the present conditions in the analysis of fats and oils which are exceedingly unsatisfactory.

The committee expects, from time to time, to publish the results of its investigations and if thought advisable make recommendations. Any person desiring information regarding the work or information along these lines should address the secretary of the committee, C. N. Forrest, Maurer, N. J.

SCIENTIFIC NOTES AND NEWS

AT the close of the second week of the celebration of the twentieth anniversary of Clark University, further honorary degrees were conferred as follows: doctorate of laws on Marston T. Bogert, professor of organic chemistry in Columbia University; Arthur Michael, the first professor of chemistry in Clark University, professor of chemistry in Tufts College; A. A. Noyes, professor of chemistry in the Massachusetts Institute of Technology; W. A. Noyes, professor of chemistry in the University of Illinois; the degree of doctor of chemistry on Theodore W. Richards, professor of chemistry in Harvard University; of doctor of science on André Debierne, of the University of Paris, and Julius Stieglitz, professor of chemistry in the University of Chicago.

THE medical department of Stanford University, formed by amalgamation with Cooper

Medical College, was formally opened on September 8. Dr. H. A. Christian, dean of the Harvard Medical School, made the principal address, the subject of which was "The Career in Medicine and Present-day Preparation for it." This address will be published in *SCIENCE*.

PROFESSOR J. ARTHUR THOMPSON, of the University of Aberdeen, is giving in South Africa under the auspices of the South African Association for the Advancement of Science a series of lectures in celebration of the Darwin centenary.

MR. O. H. TITTMAN, chief of the U. S. Coast and Geodetic Survey, is the member for the United States of the permanent commission of the International Geodetic Association, the meeting of which was held in London beginning on September 21.

AT the recent meeting of the International Otological Congress at Budapest, Professor Clarence John Blake, of Harvard University, was elected president of the next congress, to be held in 1912, in Boston.

AN Illuminating Engineering Society has been founded in London, with Professor Sylvanus P. Thompson as the first president.

PROFESSOR RALPH S. TARR, Cornell University, will spend the current year in Europe on sabbatical leave.

PROFESSOR H. F. CLELAND, of Williams College, spent July and August in studying certain geological features of Wolff County, Ky., and of the Forest Reserve south of Flagstaff, Arizona. He also visited the Grand Canyon of Arizona, the Yosemite and Canadian Rockies.

SECRETARY CHARLES D. WALCOTT, of the Smithsonian Institution, has returned to Washington after a seven-weeks' trip in the higher Canadian Rockies to the north and south of the main line of the Canadian Pacific Railroad. In continuation there of his geological work in the main range of the Rocky Mountains Mr. Walcott found the base of the great Cambrian System in a fossil sea-beach that now forms a bed of white quartz pebble conglomerate some 300 feet in thickness. Below this, 4,000 feet of limestone of an older period were measured, and above it over 12,000